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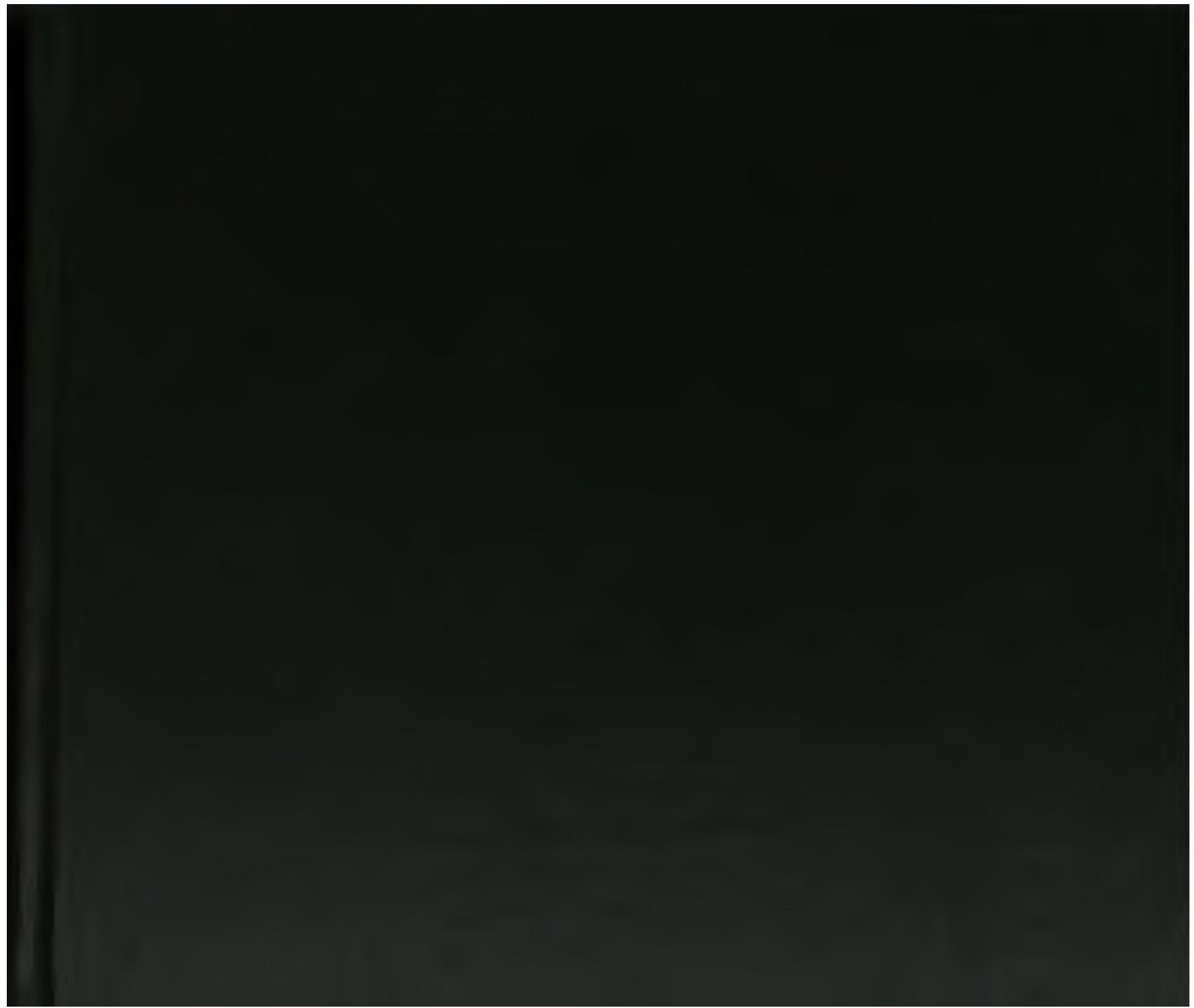
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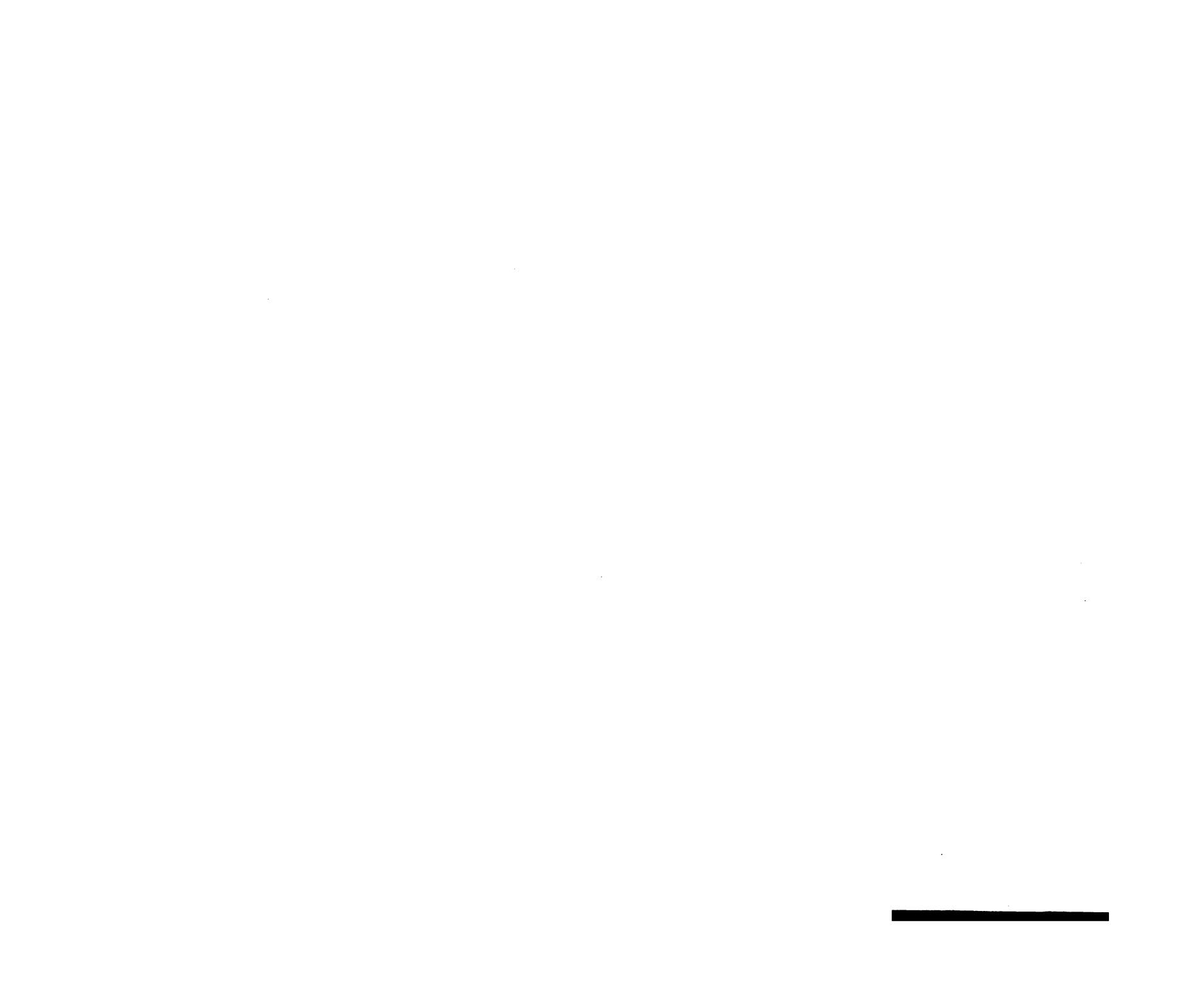
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SCOTT MON JUNEAU.

FROM A PORTRAIT PAINTED FOR THE LATE E. D. HOLTON.



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100 PHOTOGRAVURES.

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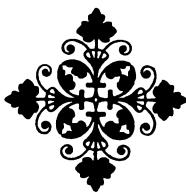
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MILWAUKEE'S HISTORY.

A. CRESSY MORRISON.

FOR two hundred historical years, and for an untold period before, of which history gives no response to the inquirer, the present location of Milwaukee had been used as a peaceful meeting-place of the Indians of the entire surrounding country—the name Milwaukee meaning “universal council-grounds.” The instinctive recognition of this location by the Indians as a most desirable and central meeting point, is the highest compliment which can be paid the geographical position of Milwaukee. It is now 193 years since Father De St. Cosme mentioned the name Milwaukee in his letter to the Bishop of Quebec, reporting a two days’ rest at the mouth of the “Melwarik” River, which, undoubtedly, was his best rendition of the Indian name, which should be pronounced *Mahn-ah-wauk*.

If additional proof was needed that the aboriginal races had the highest appreciation of natural beauty and an inherent sense of the artistic in nature, this location of Milwaukee for the universal council-grounds would be irrefutable evidence. Milwaukee rests upon the entire circuit of the most beautiful bay and harbor on the great lakes, and the high bluffs, covered with their summer dress of green, rise in graceful undulations, like a velvet carpet, upon which the city rests. The streets run east and west, north and south, and are lined with beautiful shade trees, and the houses are surrounded by lawns of large dimensions. Like one great family, Milwaukeeans live happily without fences. This absence of fences makes the residence portion of the city like a vast park and impresses one with the neighborly social atmosphere which pervades both private and business intercourse.

The first permanent white settlers were Jacques Vieau and Solomon Juneau, Indian traders, who came in September, 1818. The name of Solomon Juneau is reverentially held in the memory of every old settler in Milwaukee. His generous heart and open hand made him beloved by all, and at his death in Shawano, Wis., November 14, 1856, the Indians, who loved him as a father, grief stricken, “with stately tread and blackened faces, passed in review the corpse of their dead friend, and the chiefs in solemn council summoned their braves to attend his funeral.” “Never,” said old Augustin Grignon, “have I heard of this before.” He was buried in Shawano by the Indians, but was afterwards removed to Milwaukee. His demise was sincerely mourned by the entire city.

Although the first settlement of Milwaukee by the white race was in 1818, it was at that time simply a trading post, made more valuable for this purpose by the annual congregation of the Indians for their councils of peace; and in 1833 Mil-

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waukee contained only seven heads of families. The white population numbered not more than twenty-five. From that time forward settlement became more rapid, until in 1835 there were 28 buildings. In 1836 the coming metropolis assumed its first metropolitan character; streets were graded, a Court House built, the first newspaper was established, and several manufacturing industries were initiated, among them a lime-kiln, a brick manufactory and several saw-mills. In 1843 the *Sentinel* recorded the remarkable growth of the new town, as will be seen by the following extract: "Within two years 250 houses have been erected, and there are 4,000 inhabitants at the present time." To Byron Kilbourn, who came to Milwaukee in 1834, is due the credit of the first comprehension of the future possibilities of the splendid geographical location of Milwaukee. "He came with the express and only purpose of building a city." In the fall of 1837, to place his ideas of the future metropolis before the public, he published a series of letters in the *Milwaukee Advertiser*. These articles did much to attract public attention to the superior advantages offered by the present location, and were prophetic of the greatness which is now being realized.

The village of Milwaukee, comprising part of the territory now known as the East Side, was organized February 27, 1837. On January 31, 1846, Milwaukee was incorporated as a city, Kilbourntown and Walker's Point being added to the village, and the three divisions then becoming respectively the East, West and South Wards. The population at that time was 9,660. Now it is 240,000. The following table shows the remarkable growth of the city :

1836.....	275	1870.....	71,440
1840.....	1,810	1880.....	115,587
1850.....	20,061	1890.....	204,000
1860.....	45,246	1892.....	252,000

The climate of Milwaukee is admirable, similar in many respects to that of New England, tempered in summer by its proximity to Lake Michigan, from which blow cool and invigorating breezes, making the warmest Milwaukee days comfortable. In fact, Milwaukee has attained national reputation as a summer resort, as it combines all the conveniences and comforts of the city with the clear atmosphere of the country. The lawns, shaded streets and parks give a sense of freedom which cannot be obtained in any other metropolis. It is said that the cream-colored bricks, of which Milwaukee is built, reflect the sun instead of absorbing the heat, and that this, in some measure, accounts for the rapid escape of the summer heat and the coolness after nightfall. There are more shade trees in Milwaukee than in any other city of its size, and nearly all the residence streets are so arranged that the sidewalks run inside a little strip of greensward, in which stately trees are planted, thus forming a charming addition to the beauty of the surroundings. Milwaukee is blessed with numerous city parks which, though purchased within the last two years, are already showing the results of careful development. The Lake Shore parks are beautiful beyond description, and when the boulevards are completed throughout the city, it will make a park and drive system unrivaled.

Near to Milwaukee, in every direction, are numerous inland lakes reached by romantic drives. Along the shores of Lake Michigan are various resorts where summer amusements are to be found.

Statistics of health show that Milwaukee stands in the first rank—a fact accounted for by the rolling surface and the elevation above the lake; by pure water; perfect drainage; the absence of excessive heat in summer, and the *absence of poverty*.

Morally, Milwaukee is unrivaled, it being a remarkable fact that the number of policemen *per capita* is less than in any other large city in the world, and it might be added that this number have very little to do.

The water supply of Milwaukee and all connected with it, is owned by the city, and its market value alone exceeds the public debt, a high compliment to the management of the city finances. The new intake for the supply of water is located 8,000 feet from the shore of the lake and 45 feet below the surface, and is so situated that absolutely pure water, as cool and clear as crystal, is supplied in unfailing abundance. By means of a tunnel from the lake to the Milwaukee River, 525,000,000 gallons of water are forced every twenty-four hours into the stream, and by accelerating its motion, keeps the river clean and pure throughout the year.

In educational matters Milwaukee stands pre-eminently in the front rank. Even so far back as 1876 she had attained this pre-eminence and won the gold medal for efficiency at the Centennial Exposition. Since that time efforts to advance, in every manner, the cause of education have met with hearty approval from the people of Milwaukee, and the same supremacy is still maintained. The public school expenditure for maintenance in 1890-91 was \$429,671.18. In addition to the 36 public schools, there are 67 parochial and private schools where most excellent educational facilities are furnished. The State University is the upward extension of the schools of Milwaukee and of the schools of other cities in the State. Graduation certificates from accredited high or normal schools admit students to the University. Therefore the University of Wisconsin is the key-stone in the arch of Milwaukee's educational facilities, and its standing is conceded to be in the first rank of State universities.

Milwaukee has a very complete and valuable Public Museum, and one of the best Public Libraries in the United States. Our city is the home of the well known Milwaukee College. The reputation of Milwaukee as a musical center has not only been attained, but maintained. In Art, Milwaukee is both creative and appreciative, and the art productions of Milwaukee are sought wherever connoisseurs are to be found. In addition to the Layton Art Gallery, which is free to the people, and which is admitted to contain one of the most satisfactory collections of pictures in this country, there are many private galleries which will stand comparison with any similar collections. There are innumerable scientific and educational organizations where the intellectual side of life can be fully developed.

The charitable organizations, both under city, parochial and private supervision, are numerous. Cooking schools, short-hand business colleges and various other institutions of special culture are liberally supported.

There are 115 churches in Milwaukee and 18 chapels or missions, representing every phase of religious thought, and meeting the requirements of every religious mind.

Milwaukee has one of the few Woman's Clubs in the world. It is an organization of 300 representative women of Milwaukee, and has been a number of years in existence. They have their own beautiful building and carry on a series of lectures, receptions and entertainments throughout the year.

The Milwaukee Whist Club has won many trophies in competition with organizations of other cities, and it was the first club of its kind in the country. The Milwaukee Gymnastic and Athletic Club is a large and numerous organization, and has been called into competition with the Whist Club. It was formed at the suggestion of a Milwaukeean. Gymnastic and athletic clubs are numerous and successful.

Numerous business associations, formed for the purpose of Milwaukee's advancement, contribute materially to the success of the city, and by drawing our most prominent business men together for consultation, give Milwaukee the advantage of concerted action, and the power of friendly co-operation is so well recognized that Milwaukee's business interests move harmoniously forward without friction and with phenomenal success. The Chamber of Commerce, the Association for the Advancement of Milwaukee, the Milwaukee Real Estate Board, the Merchants' Association, the Manufacturers' Club, and many others, each contributes in its way to the prosperity of the city.

It has been said that Milwaukee is slow. Never was a statement more complimentary to a Western city. The slowness, to which some advocates of the "mushroom principle" point, is that true conservatism which first lays the foundation well and then builds the superstructure.

Almost every prominent industry has started in the simplest way, and nearly all of them are still in the hands of the first, or at the most, the second generation of business ability, and yet there are four or five most important industries in the manufacturing world in which Milwaukee is pre-eminent. The industrial growth has been enormous by reason of its constant progression. It has been brought about by the wisdom of Milwaukeeans, who have re-invested their money in the city of Milwaukee. Its industrial strength is an outgrowth of the conservative policy which depends upon natural rather than artificial means for development. Milwaukee capital supports Milwaukee industries. There has been no ambition to outstrip actual demands which, in so many communities, results in over-production and subsequent depression; but there is an irresistible steadiness of tread in the march to supremacy which enables Milwaukee manufacturers to force their way in the face of every business obstacle. The industrial history of Milwaukee represents the oak principle—a steady growth, based upon natural advantages, and finally towering far above its more rapid-growing neighbors. From the acorn the oak has grown, and Milwaukee is now recognized as the greatest manufacturing center of the West. When it is asserted that this, a Western city, has but 8½ per cent. of its low tax valuation represented by outside capital, it is a statement so astounding that sister cities would blush at the comparison.

The public debt of Milwaukee, which, by the way, is very largely owned by Milwaukeeans, represents about one-seventh of the cash value of the property owned and controlled by the city government. The water works alone could be sold for enough to relieve the city of its entire indebtedness. Taxes are based upon about one-third valuation, and the tax rate is about one and three-quarter per cent.

The transportation facilities of the city are unrivaled. Fourteen railway systems either have their terminals in or pass through Milwaukee. There are five regular lines of steamers connected with railway lines on Lake Erie, which run regularly to and from Milwaukee. There are also three lines of steamers running from Milwaukee, crossing Lake Michigan and there connecting with railways to the East.

Our city possesses the finest harbor on the lakes, having a dockage of 22 miles for the accommodation of commerce, and has every advantage from the standpoint of freight rates. The rate from all Western points *via* Milwaukee to all Eastern points is the same as *via* Chicago, and from Milwaukee East, by making use of the lakes to points in Michigan, has the advan-

tage of 4c per hundred over Chicago. This advantage makes the enormous manufacture of flour possible, and aids materially in the industrial development of the city.

It seems as though all nature had combined to make Milwaukee the great manufacturing center of the West, and the destiny of the Cream City to progress in this manner until it stands pre-eminent as the manufacturing center of the United States, is plainly marked out for it.

The real estate interests of Milwaukee are gradually rising to the prominence which so vast a subject deserves. It is undoubtedly true that Milwaukeeans have been so intent upon the development of manufacturing and commerce, that they are only just awakening to the fact that the real estate of Milwaukee has become valuable beyond the expectations of the most sanguine, and even to-day the prices of realty in this city are far below those prevailing in any other city of its size. Within the last two or three years, however, the acknowledged solidity of the business interests, and the efforts of the Real Estate Board to awaken Milwaukeeans to the appreciation of their possessions, have resulted in many transfers of real estate and the construction of several magnificent buildings, all of which are occupied as soon as completed.

Residence property is in constant demand, and the addition to the city's population, being over 20,000 people per annum, assures the steady advancement of values wherever property is platted.

The most remarkable fact is, that manufacturing industries are developing with sufficient rapidity to absorb the workers who reach Milwaukee each year, and there is, therefore, no idleness or lack of employment.

The modest price of real estate, and the economy with which houses can be constructed through the advantages offered by the various Building and Loan Associations, make Milwaukee workers all home-builders, and those who are familiar with this class of people know that the man who owns his home is the man who can be depended upon.

There is but little speculation in Milwaukee real estate, and the conservativeness which has characterized Milwaukee characterizes its real estate dealers, who do not desire what may be termed a "boom," but rather that steady appreciation which is natural and legitimate.

There are very few mortgages on realty in Milwaukee, and most of these are owned by Milwaukeeans.

Architecturally, Milwaukee is rapidly becoming magnificent. Ten or twelve imposing buildings have been constructed during the present year and several others are in contemplation, all of which are built by Milwaukeeans from Milwaukee material.

The Milwaukee Press is able and progressive. Both the American and German papers are fully abreast of the times and are most ably edited. The leading German paper has the largest circulation of any similar publication west of New York.

Milwaukee has unrivaled hotel facilities. Four first-class hotels are already in existence and the fifth magnificent structure will be ready before the close of the year.

There are three first-class theaters, and another is about to be constructed.

Milwaukee's postal facilities are enhanced by the most efficient management, and the growth of the cash receipts from \$90,000 in 1870, to \$186,000 in 1880, and from that to \$389,000 for the year 1891, speaks most eloquently for the commercial growth of the city, for the post-office is the unfailing register of progress both in commerce and civilization.

The banking facilities are adequate, and like all other institutions in Milwaukee, they are owned and controlled by Milwaukeeans. Milwaukee capitalists supply money for Milwaukee industries and the interest stays in Milwaukee. It has been said that the banks of Milwaukee, like the city itself, are conservative, substantial and safe. Not a single bank has closed its doors in this city since 1873, and for a quarter of a century not a dollar has been lost to any depositor in a Milwaukee bank. Need anything further be said of them?

If anyone will take the trouble to examine the illustrations in this publication, he cannot fail to perceive the rounded contour of Milwaukee's financial stability ; and to say that it is the most beautiful city in the United States, that it possesses advantages which are unsurpassed, that it is a home and a place for investment, is something more than blank assertion when backed up by the pictorial evidence that the facts exist.

Milwaukeeans are hospitable, and strangers visiting the city will be given an opportunity to see with their own eyes the value of our possessions. It is hoped that during the World's Columbian Exposition many people will avail themselves of the proximity of Milwaukee and visit our city and enjoy the cool breezes of Lake Michigan and the comforts of quiet and rest, and at the same time learn something of Western progress, Western stability, Western culture and Western hospitality.

MILWAUKEE'S INDUSTRIES.

R. H. O'DELL.

LEADING FEATURES SUMMARIZED.

*T*o write a concise, intelligent, comprehensive and accurate review of the industries and advantages possessed by Milwaukee in a few ordinary pages, is not an easy undertaking. It admits of the use of few unnecessary words. There can be no use made of vagaries or display of literary zeal. Condensation must be a governing power. There can be little elaboration upon the fact that Milwaukee has more than 3,000 manufacturing institutions, employing 60,000 persons who receive over \$25,000,000 annually in wages, and produce \$130,000,000 worth of manufactured articles in a year. Neither can there be expatiation upon the fact that the city has over 100 miles of the best equipped electric street railway in the world; that it has one of the finest harbors on the great lakes and twenty-five miles of river dockage, to any part of which the largest vessels on the inland waters can float full laden; that it has 204 miles of water mains; 210 miles of sewerage system; 260 miles of fire alarm telegraph; 192 miles of graded and graveled streets; 175 miles of streets paved with cedar blocks, and 35 miles of granite pavement.

Few lines can be devoted to the fact that the city has the largest breweries in the world, also the largest tanneries, the product of which won the first gold medal at the great Paris Exposition; that it has fourteen railroad and twelve lake transportation lines, or that its receipts of grain and flour in 1891 were equal to 40,000,000 bushels.

There can be little dwelling upon the fact that the city has the best public school system in the country and that its schools won the gold medal for efficiency at the Centennial Exposition in Philadelphia.

Little can be said of the fact that fully one-third of the tinware used in the United States is made here, and that largely in the great factory of Kieckhefer Bros., which occupies three or four whole blocks of ground; or that the E. P. Allis iron works, the largest in the West, produce the largest engines in the world and turn out an average of more than one stationary engine for every working day in the year, and that the product of these works is found in almost every State in the Union and in nearly every country on the globe where stationary engines are used.

The extensive commerce of the city will be but merely mentioned; the fact, however, should be made prominent that freight rates from Milwaukee to all Eastern points are the same as from Chicago.

One can but merely mention that Milwaukee is one of the healthiest cities in the Union and has a lower death rate than

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any other city of its class in the world, or that its people are the best-behaved and the most law-and-order observing and require fewer policemen than any other city of like population to maintain law.

There is no room for dwelling extensively upon the magnificent system of public parks recently established, embracing hundreds of acres of the handsomest natural groves in the country, yet it should not be forgotten that the whole city is almost a park, and the most cleanly and delightful town to live in in the whole country.

Figures with few comments must tell the story that of the 80,216 children in the city of school age but 1,111 between the ages of 7 and 13 years failed to attend school at least twelve weeks during 1891.

A similar rule must be observed in stating that the assessment rolls of the tax collectors show an increase of \$10,254,044 in the last year, and that of this \$2,561,630 is on improvements; that the assessed valuation of all city property is \$124,000,000; that the rate of valuation is less than one half and the rate of taxation only about \$.0175 per dollar, while the total debt of the city is but \$3,420,000 and the value of public property over \$20,000,000; that the foreign capital invested in the city amounts to but 8½ per cent. of the city's wealth. These few brief points lead to fuller summaries of some of the city's important industries and advantages.

MILWAUKEE'S MANUFACTURING.

The wealth of the world is produced. It is the result of effort wisely guided by directing skill. The increase in Milwaukee's wealth, population and business transactions is largely contingent upon one great and growing factor—her manufacturing industries. This statement may be best illustrated to the comprehensive mind when it is understood that at the beginning of 1892 Milwaukee had within the city limits 3,258 different manufacturing concerns in which were invested \$80,506,500, giving employment to 55,890 persons, to whom were paid \$24,072,000 in wages during 1891, and which turned out \$129,347,885 worth of manufactured product. Such are the figures compiled by a local statistician for the *Milwaukee Sentinel* at the close of 1891 for that year. Perhaps in but one feature of the annual business are they far from correct: that is in the matter of building and repairing railway rolling stock, in which the figures given are far too small, the amount paid in wages being given at \$500,000, while that paid by the Chicago, Milwaukee & St. Paul Railway Company alone for labor in its shops is far in excess of \$2,000,000 a year.

With an industrial army of 55,890 persons actually engaged in pursuits which produce wealth in a greatly diversified line of staple manufactures, it will not be regarded as strange that the city is experiencing a rapid growth in business transactions, population and wealth. An idea of the rapidly increasing productive capacity of the city is readily gained from the fact that the United States census of Milwaukee manufactures, taken in 1890, stated the manufactured products of that year to be but \$106,000,000, thus showing an increase in one year of \$24,000,000 in round numbers. The increase in the value of the city's manufactures for the year 1890 was \$63,000,000 over those of 1880. Careful statisticians estimate that the product of 1892 will reach \$150,000,000. A knowledge of the manner in which manufactures of many kinds are increasing in numbers, established ones adding to their capacity, and entirely new lines being projected, will lead any one to the belief that this estimate will be found below rather than above the actual value of this year's product of the manufacturing establishments of Milwau-

kee. That the increase in 1892 will be double that in 1891, there is little doubt. There are quite a number of extensive industries which had but just begun business at the close of 1891, the product of which for 1892 will run up into the millions; while many others have well-nigh doubled their capacity, and all have been operated to their fullest extent, except some of the tanneries, where a strike early in the year somewhat reduced the output for a few months.

In the growth of Milwaukee, which as a city is but just beginning to receive the attention of extensive and conservative capitalists as one of the most favorable locations on the continent for manufacturing, there has been no forcing or hot-bed propagation and no abnormal reaching out in any way. It has been a substantial and a durable growth, encouraged and made staple by the natural advantages of the location, not the least of which are found in the transportation facilities afforded for direct shipment of products to all parts of the civilized world. With recent progress made in ship-building, the Milwaukee manufacturer is enabled to load his products upon a steamer at the very door of his factory for direct shipment to the principal ports of Europe. Or by taking advantage of the opportunities offered by the combined rail and lake carrying lines, added to the all-rail lines which enter the city, he can ship direct to any part of the United States with but one re-handling. The abundance of nature's available resources which Wisconsin possesses in iron, wood, lead, etc., all of which are cheaply placed in the hands of the Milwaukee manufacturer, also goes far toward making Milwaukee a natural manufacturing center and helps to make up the most admirable combination of resources for a great and prosperous city. With the impetus which these advantages, just beginning to be well known, are destined to give to business enterprises here, it is not too much to expect that the manufactured products of Milwaukee for the year 1893 will go very close to, if indeed they do not exceed \$200,000,000 in value, and give constant employment to more than 100,000 employes at remunerative wages.

The following statistical table of Milwaukee's manufactures for the year 1891, as published by the *Sentinel* January 1, 1892, contains much that is of interest. The miscellaneous list embraces many small concerns, perhaps trifling in themselves but of much importance in the aggregate, and ere another year many of them will have been enlarged and moved up to prominence in the individual column :

MANUFACTURING ESTABLISHMENTS.	No. of Establish- ments.	No. of Employees.	Am't of Capi- tal Invested.	Amount of Wages Paid.	Value of the Year's Production.
Beer.....	8	2,400	\$12,500,000	\$1,500,000	\$18,833,385
Meats and provisions.....	10	1,000	3,000,000	600,000	11,000,000
Engines and machinery.....	40	3,000	5,700,000	1,650,000	6,000,000
Bay View Iron and Steel works.....	1	2,000	5,500,000	1,200,000	6,500,000
Leather.....	15	2,500	5,100,000	1,050,000	5,100,000
Clothing.....	350	5,000	4,000,000	1,300,000	5,550,000
Wood working plants.....	200	4,600	3,600,000	1,600,000	7,000,000
Flour and feed.....	9	400	2,000,000	300,000	8,500,000
Building.....	300	3,500	1,700,000	2,000,000	11,000,000
Boots and shoes.....	200	2,100	3,500,000	1,000,000	3,200,000
Millinery and dressmaking.....	500	1,700	1,000,000	410,000	2,250,000

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MANUFACTURING ESTABLISHMENTS.	No. of Establishments.	No. of Employees.	Am't of Capital Invested.	Amount of Wages Paid.	Value of the Year's Production.
Barley malt.....	9	325	\$2,200,000	\$210,000	\$4,855,000
Tinware.....	5	800	1,000,000	200,000	1,500,000
Railway repairs.....	2	1,800	1,200,000	500,000	1,500,000
Cigars.....	200	1,000	720,000	410,000	1,200,000
Manufactured tobacco.....	4	325	1,000,000	985,000	1,500,000
Confectionery and crackers.....	40	560	900,000	300,000	1,200,000
Coffees and spices.....	6	80	500,000	60,000	1,000,000
Agricultural machinery.....	10	500	1,650,000	275,000	1,100,000
Wagons, carriages and blacksmithing.....	90	900	1,000,000	320,000	1,100,000
Brass and copper manufactures.....	10	600	815,000	300,000	1,100,000
Knit goods.....	9	1,100	750,000	225,000	1,000,000
Printing and publishing.....	100	1,050	1,450,000	520,000	1,550,000
Public improvements.....	25	1,150	1,000,000	520,000	2,000,000
Bridges.....	2	500	800,000	270,000	1,000,000
Compounded liquors.....	20	100	500,000	60,000	1,500,000
Gloves, mittens and fur garments.....	8	260	500,000	125,000	900,000
Boilers.....	9	300	450,000	150,000	900,000
Brick and tiles.....	12	800	1,300,000	175,000	800,000
Plumbing.....	35	450	400,000	275,000	800,000
Painting and paper hanging.....	100	750	200,000	150,000	700,000
Ship-bullding.....	4	850	600,000	200,000	700,000
Soap.....	12	160	400,000	74,000	610,000
Granite, marble and cut stone.....	15	350	500,000	205,000	600,000
Malleable iron castings.....	2	750	500,000	350,000	800,000
Furnace work and tin jobbing.....	50	500	650,000	275,000	725,000
Electrical apparatus.....	8	150	525,000	215,000	740,000
Trunks.....	7	500	600,000	200,000	650,000
Cooperage.....	50	525	800,000	275,000	700,000
Lithographing.....	7	260	500,000	230,000	625,000
Bread and cake.....	200	600	500,000	250,000	600,000
Vinegar, yeast and pickles.....	5	100	425,000	65,000	405,000
General laundry work.....	..	200	350,000	125,000	400,000
Plumbers' supplies.....	2	300	400,000	150,000	430,000
Blank books and binding.....	14	290	190,000	110,000	440,000
Quarried stone.....	4	325	300,000	90,000	225,000
Baskets and toys.....	4	350	265,000	80,000	325,000
Stoves'.....	2	650	800,000	350,000	900,000
Lime and cement.....	2	700	600,000	275,000	525,000

MILWAUKEE'S INDUSTRIES.

13

MANUFACTURING ESTABLISHMENTS.	No. of Establishments.	No. of Employees.	Amt. of Capital Invested.	Amount of Wages Paid.	Value of the Year's Production.
Paints.....	3	28	\$145,000	\$20,000	\$200,000
Linseed oil.....	1	30	120,000	20,000	260,000
Lubricants.....	10	45	155,000	20,000	275,000
Straw hats.....	2	350	250,000	115,000	350,000
Chemicals and flavoring extracts.....	6	115	310,000	35,000	390,000
Wire goods.....	9	160	120,000	85,000	275,000
Woolen yarns, etc.....	3	300	160,000	65,000	475,000
Picture frames.....	25	105	160,000	55,000	210,000
White beer and soda water.....	11	45	75,000	30,000	100,000
Coffins.....	1	65	100,000	30,000	125,000
Jewelry.....	..	120	175,000	65,000	200,000
Hammocks, fly-nets and cordage.....	10	300	125,000	60,000	190,000
Flour sacks and bags.....	1	35	100,000	10,000	130,000
Paper boxes.....	3	150	80,000	50,000	125,000
Purses and pocketbooks.....	1	65	70,000	18,000	115,000
Artesian wells.....	1	85	75,000	60,000	110,000
Soda-water apparatus.....	3	50	160,000	35,000	180,000
Type.....	2	85	150,000	30,000	100,000
Statuary.....	3	120	180,000	30,000	120,000
Tools.....	6	75	100,000	60,000	150,000
Furnaces and ranges.....	2	115	100,000	45,000	180,000
Glass bottles and fruit jars.....	1	225	100,000	112,000	215,000
Mechanical dentistry.....	20	35	75,000	25,000	100,000
Suspenders.....	1	50	58,000	15,000	100,000
Elevators.....	3	70	80,000	35,000	95,000
Car wheels.....	1	135	145,000	25,000	100,000
Pipe covering.....	2	60	55,000	22,000	85,000
Adamant.....	1	40	25,000	18,000	75,000
Sewer pipe.....	3	60	100,000	30,000	75,000
Wood and process engraving.....	7	55	18,000	30,000	60,000
Artificial flowers.....	1	70	30,000	17,000	50,000
Stone and earthenware.....	10	60	60,000	27,000	50,000
Human hair work.....	16	50	40,000	12,000	60,000
Plastering hair.....	1	11	40,000	6,000	50,000
Files and rasps.....	1	50	40,000	20,000	60,000
Carpets, woven.....	35	100	40,000	12,000	50,000
Brooms and brushes.....	10	50	25,000	19,000	50,000
Tacks	1	20	84,000	10,000	82,000

MILWAUKEE—100 PHOTOGRAVURES.

MANUFACTURING ESTABLISHMENTS.	No. of Establishments.	No. of Employees.	Amt. of Capital Invested.	Amount of Wages Paid.	Value of the Year's Production.
Bells.....	1	25	\$75,000	\$18,000	\$41,000
Pianos and organs.....	3	20	22,000	14,000	30,000
Fertilizers	2	20	85,000	18,000	45,000
Stamps, seals and stencils.....	6	40	35,000	8,000	35,000
Tents and awnings	8	45	20,000	16,000	45,000
Egg cases.....	1	12	25,000	5,000	40,000
Babbitt metal.....	1	2	2,000	1,000	11,000
Macaroni and vermicelli.....	1	12	12,500	4,000	10,500
Office files.....	1	20	65,000	16,000	35,000
Miscellaneous.....	300	3,500	2,000,000	500,000	5,000,000
Totals	3,258	55,890	\$80,506,500	\$24,072,000	\$129,347,885

The compiler of these figures says of them in an admirable volume, entitled "Milwaukee's Great Industries," recently published by the Association for the Advancement of Milwaukee:

"The miscellaneous list includes a few industries of considerable importance, and a great many which, individually considered, are of small extent, but which taken aggregately, go to swell the total. In this miscellaneous list are included the figures for lye and potash works, roofing material, manufactures, millwrighting, bottling of mineral and soda waters, tower clocks, corks, photographing, upholstering, harness and saddlery, silk hats, sad irons, watch repairs shops, gloves and mittens, dyeing and cleaning establishments, etc. The classification is generalized to such an extent that many subdivisions of the various lines are not shown separately, but are included in the totals given. The year 1891 witnessed the establishment of numerous new manufactories which have so far not had time to make a record of production, so that the table is incomplete in that it does not show the actual productive capacity of the city's factories.

"In most cases the largest enterprises of the city have sprung into prominence only within the past ten years, their principal growth having taken place within that period. The census of 1890, taken for the year ending June 1st of that year, will show a production of about \$106,000,000, an increase over the census of 1880 of nearly \$53,000,000, and for the year 1891 the production approximated \$130,000,000. But if the recent growth has been rapid, it has had for its basis a healthy demand on the part of the public for the articles produced, and has had a firm foundation upon which to build. Very few of the great establishments, which have reached large proportions from small beginnings, have required assistance from outside capital, and there has consequently always existed a conservatism in this branch of business, as in other lines, that has prevented the extensions beyond the means of the promoters which are so frequently the cause of disaster and ruin.

"Of all Western cities, Milwaukee unquestionably holds the most desirable position for the development and extension of manufacturing enterprises of every kind. Other cities have appropriated unto themselves the sobriquet of 'Key City,' but none more richly deserve that title than Milwaukee. The variety of natural products that are so easily obtained from every direction, cannot be surpassed in any part of the world. Surrounded by the richest agricultural territory to be found, in close

proximity to the greatest timber and mineral districts so far developed for the use of man, it would be strange indeed if the natural force of events had not made Milwaukee a great industrial center, even though some of the minor advantages might be lacking. And then there is the additional fact of admirable transportation facilities for traffic of every variety with all parts of the country, and for export shipment; a healthful climate that enables a workman to put in more days and to do more work per day than in a less favored latitude; real estate that will never be worth less than the price paid for it, because it has never been boomed up to an inflated value; and a class of contented, industrious, hardworking mechanics and laborers who hesitate long before they endanger their own purses and the interests of their employers by unreasonable strikes."

That the manufacturing and productive facilities of a city constitute a safe criterion by which to judge of its stability no sane person will deny. Hence the justification for devoting several pages of this book to that one feature of Milwaukee's stability. The growth of manufacturing industries and the increase in product during the past four years have been almost marvelous. But there has been an influence at work to bring about that end. It has required something more than the advantages which kindly nature provided. The world needs to be informed of the opportunities offered in order to attract capital into productive lines as well as to carry the product into other fields for consumption. During the last four years Milwaukee has had a goodly influence at work to accomplish these ends. In 1888 the Association for the Advancement of Milwaukee was organized. Its purposes were to attract the attention of manufacturers seeking favorable locations to the opportunities which Milwaukee offered, and to give its aid in providing better facilities for transportation than the city formerly enjoyed. To the accomplishment of these ends it has been decidedly active. It has been an advance-guard in the interest of the city in many ways. Among the men whose public spirit and untiring energy have been largely instrumental in the work accomplished are Messrs. T. L. Kelly, C. M. Cottrill, A. W. Rich, B. B. Hopkins, William Plankinton, J. A. Watrous and its present president, C. C. Rogers, while many others have given the work their best encouragement, and have contributed liberally to its support. To the efforts of this Association is attributed much of Milwaukee's industrial growth. Through its efforts transportation facilities have been nearly doubled, thus making possible the return of Milwaukee's former prominence as a grain-shipping point. In preparing a concise sketch of the work done by this Association a studious writer recently said:

"Its efforts made were the seeds of inspiration from which have grown the trees and branches of improvement, progress and prosperity apparent on every hand. The agitation started by the Association awakened new life, and the latent resources and ability of thousands already established in business here, as well as to invite other thousands to locate here and add their energies to the growing greatness of the city. The growth of industry, and increase of population thus secured, necessitated enlargement of the city's borders, and caused a more dense filling up within the prescribed limits, and one of the results now prominently seen is the unprecedented movement in real estate in and about the city, which is rapidly building up handsome and prosperous suburbs, teeming with prosperity. These suburbs are parts of industrial Milwaukee, and their prosperity is interwoven with that of the city proper. Whenever a factory locates at one of them the city's importance and wealth are increased, and whenever there is a removal of a manufacturing enterprise from the city proper to a suburb, no actual loss is sustained. This is illustrated in the status of the great packing establishment of Cudahy Bros. It is about to remove to Cudahy, a few miles south of the city, but is practically to remain in Milwaukee, where it will maintain a business office and

continue to be counted one of Milwaukee's most important industries. The growth of population and industry necessitated improved means of transit, and to-day we see nearly one hundred miles of the best equipped electric street railway in the world where four years ago the horse and the mule were the motive power, and distances requiring an hour to cover then are now made in one-quarter of that time. This change has brought millions of dollars in foreign capital to the upbuilding of Milwaukee."

An idea of the tanning industries of Milwaukee may be obtained from the fact that the total receipts of beef hides for 1891 was 656,984, of which 618,449 were used in the local tanneries, besides 500,000 calf skins and 200,000 sheep pelts. The supply of tan bark for the year, obtained from the forests of Northern Wisconsin and Michigan, was 57,921 cords, of which 49,667 cords came by lake. These industries give constant employment to over 3,000 workmen. A large amount of the leather produced by them is also made into boots, shoes and harness here.

The receipts of wool in Milwaukee during 1891, by rail and lake, were 3,925,759 pounds, and from other sources—by teams and pulled from pelts in the tanneries—fully 1,000,000 more. Of this quantity there were shipped away 2,262,543 pounds, leaving over 2,500,000 pounds consumed in the various factories of the city, an increase of nearly 1,000,000 pounds over that consumed in 1890.

The consumption of lumber in the industries and new buildings in Milwaukee in 1891 is suggested by figures which follow: The receipts of lumber for the year were 361,126,000 feet and the total shipments were 174,388,213 feet, leaving for consumption 186,737,887 feet. There were 107,896,000 shingles received and 79,300,000 shipped. The receipts of lath were 17,641,000 feet and the shipments were 6,660,000 feet, leaving 11,000,000 feet to home consumption.

The receipt and consumption of such a quantity of building material is suggestive that much new building must have been done. Statistics carefully compiled at the close of 1891 showed that the building expenditures for the year in the territory now embraced by the city boundaries aggregated \$11,029,000. Of this sum \$1,100,000 was expended in territory not within the city limits one year before, but which came in by extending the boundary lines a half mile farther out on the south, west and north. This left \$9,929,000 invested in new buildings in the same territory in which \$7,000,000 was the aggregate spent in new buildings in 1890. Strikes prevailed in all of the building trades beginning April 1, 1891, continuing four months, during which time there was practically nothing done in the building line. The result was a curtailment of proposed building fully one-third. Had there been no labor troubles the expenditures in new buildings for the year would have reached \$15,000,000 in the aggregate. Of the sum spent in new building, fully \$5,000,000 was in dwellings, \$3,000,000 in stores, \$2,000,000 in factories and about \$350,000 in churches and school houses. The fact that more than 3,500 new dwellings were erected in 1891 is suggestive of the rapidity and permanency of the city's growth.

Notwithstanding the marked increase in the number of new dwellings erected in 1891, Milwaukee is not a city of vacant houses; on the contrary, a vacant house is very much of a rarity, as is suggested by the rapidly increasing population. The United States census of 1890 gave the city's population at 204,468. The school census of 1891 indicated a population of 228,430, and that of 1892 gave unmistakable proof of 252,000. Of this increase in two years 7,000 came by the extension of the city limits and the balance was absolute growth.

TRANSPORTATION FACILITIES.

Few cities are more highly favored with transportation facilities than is Milwaukee. The Chicago, Milwaukee & St. Paul Railway, with its 7,000 miles of tracks permeating the producing regions of the Northwest, has lines from all directions into the city, while its freight-handling facilities cover hundreds of acres traversed by hundreds of miles of switches and side-tracks. In these yards are handled daily over 3,000 freight cars, which come to Milwaukee freight laden with products for consumption, and raw material for manufacture, and go out again loaded with merchandise and manufactured products for the markets of the world. The facilities of the Chicago & North-Western Railroad are about as extensive, but that system does little less business here. The Milwaukee & Northern Railroad, now owned and operated by the Chicago, Milwaukee & St. Paul Railway Company, with its tracks extending over 300 miles due north, penetrates the great iron, copper and lumber regions, and is of vast importance to the city in carrying the product of factory and mill to Northern points, and bringing back the raw product of those new and developing regions, to be perfected in Milwaukee industrial establishments. The Milwaukee, Lake Shore & Western Railroad, now in the hands of the Chicago & North-Western Railroad Company, also traverses the mining and lumber regions of the North and has its northern terminus in Ashland, that leading Lake Superior port. The Northern Pacific, by its absorption and operation of the Wisconsin Central lines, and its establishing of a steamship line from its western terminus at Tacoma to China and Japan, gives Milwaukee direct communication with and shipment to those countries, an outlet which will prove of much importance to the rapidly multiplying industries of the Cream City.

Not the least in importance to Milwaukee are its transportation facilities by water. These advantages embrace both rail and lake lines combined, as well as the all-water routes. The various great trunk lines of railroads which traverse the Eastern and Southern portions of the United States and Canada, from the eastern shore of Lake Michigan and from Detroit, all have their steamer line connections with Milwaukee, and wield a marked influence in providing the output of the city's productive industries with cheap transportation facilities to the regions where they are consumed. Added to these advantages, are those made possible by the connecting waterways and modern steamboat building, by which the Milwaukee manufacturer is enabled to load his product on a vessel at a Milwaukee dock and have it discharged in European ports, as well as in all lower lake ports. Custom House statistics show that for the season of 1891 5,942 vessels of all kinds arrived at Milwaukee, discharging 3,593,089 tons of burden. The departures for the year were 5,784 vessels with 3,510,846 tons. The tonnage here given includes that brought by the various transit lines having rail connections on the east shore of Lake Michigan. The total all-lake tonnage received in Milwaukee during 1891 was 2,155,311 tons, an increase of 448,408 tons over the receipts of 1890. Besides the hundreds of vessels of various kinds engaged mainly in the carrying business between Lake Michigan ports, there are thirteen great lines, with their various connections, by which Milwaukee merchants and manufacturers can receive and ship their wares, as follows: The Western Transit Company, Union Steamboat Company, Anchor Line, Central Vermont Line, Lehigh Valley Transportation Company, Lackawanna Transportation Company, Flint & Pere Marquette Line, Northern Michigan Line, Milwaukee & Eastern Transit Company, Goodrich Transportation Company, Detroit, Grand Haven & Milwaukee Line, Lake Michigan & Lake Superior Transportation Company, and McElroy Transportation Company.

John R. Wolf, one of the best informed marine writers in the city, says of these companies :

"They have direct connections with the leading trunk lines of the country, and receive freight from all points of the compass. Their boats include the largest and fastest steamers on the great lakes. It is a fact not generally known that freight can be delivered in Milwaukee from New York and other Eastern points in less time *via* the lake-and-rail lines than *via* the all-rail lines. This may seem incredible to some, yet it is being done every season by the leading steamboat companies. How this can be accomplished will be understood when it is known that the steel steamers *Owego* and *Chemung*, of the Union Steamboat Company's fleet, make the run from Buffalo to Milwaukee in fifty hours, considerably less time than the slow-going freight train—which is side-tracked at regular and irregular intervals—requires to cover the distance. Speed is now greatly desired by the lake steamboat companies, and the new boats they are having built annually are being constructed with a view of making much better time than their predecessors, and also to carry larger cargoes. The modern lake freight carrier is built after the ocean type, with steel hull, triple-expansion engines, Scotch boilers, steam steering apparatus, and all the latest and best appliances that are found on the greyhounds of salt water. The waterways of the lakes are being improved and deepened, which indicates that the immense traffic of the inland seas will be increased to still greater proportions. The benefits of these improvements will be enjoyed by Milwaukee and her manufacturers, and will bring her additional prosperity."

The Western shipments of freight by railroad during 1891 was 1,524,922 tons, an increase of 113,065 tons over the previous year. These figures represent only freight billed at Milwaukee, and include no tonnage shipped through from other points.

The growth of the coal trade in Milwaukee is indicated by the fact that in 1871 the receipts were 175,526 tons; in 1881, 550,027 tons, and in 1891, 1,156,033 tons. Practically all of the coal came as lake freight, the coal receipts by rail reported for the year amounting to only 149,377 tons.

MILWAUKEE REAL ESTATE.

A gratifying proof of the substantiality of Milwaukee's growth is seen in the volume and character of the real estate business transacted in the city and the towns which constitute the immediate suburbs. The really active movement in real estate dates back but few years, beginning late in the 80's. Prior to 1889, the business was confined chiefly to the then city limits, where, in a number of the outlying wards, there were quite large tracts of platted land, and even some acreage properties, to be had at moderate prices. The following figures represent the total sales of real estate in the city and towns of the county, and show the growth of the business during the past three years:

	1889.	1890.	1891.
Within the city limits.....	\$6,743,685	\$11,247,278	\$11,936,872
In the towns.....	3,450,650	4,244,024	7,853,879
Totals.....	\$10,203,345	\$16,491,302	\$19,790,751

By these figures it is seen that activity in real estate began in 1890, and that the dealing in suburban property in 1891 exceeded that in both 1889 and 1890 by nearly \$160,000. During '89 and '90 the bulk of inside vacant properties was platted and largely passed into the hands of individuals, many securing lots for building purposes. Especially was this the case in the

extreme northern and southern portions of the city, where the prices of lots were within easy reach of the thrifty and provident class of wage-workers, who constitute a large population in the city.

Up to the close of 1891 the active business class found it necessary to reside conveniently to the business portion of the city, owing to the lack of rapid transit, street railway lines being operated by animal power. In 1891 rapid transit to all parts of the city became a certainty in the near future and many business men, as well as a large army of well-paid wage-workers, immediately began looking for outlying and suburban residence properties. Real estate dealers were quick to foresee the coming demand for this class of properties and many handsome tracts of land were secured and land companies formed to handle them. The work of platting and improving went forward rapidly in all directions. While the purchase of lots by individuals for the purpose of home-building was extensive in 1891, it was not until the spring of 1892 that the great mass of wage-workers and rent-payers of the city awakened to the importance of securing lots in the new subdivisions, additions, etc. This class has been specially active during the year, and if the sales of lots singly to the people of Milwaukee are accurately compiled at the close of 1892, a surprising array of figures will be presented.

This feature of the real estate transactions of the year is important, as showing a stability in the business seldom found in the realty transactions of any great city. It alone dispels all predictions of possible collapse in the real estate business. It demonstrates that the vast array of transactions are not between syndicates and companies for the purpose of showing large transactions, but that they are genuine and that the lands are passing from the hands of organized companies to the hands of actual home-builders, a condition of which any city might justifiably be proud. With real estate thus passing into the hands of the masses, and the city assured an increase in population of 30,000 to 50,000 souls a year, there can be no danger of depreciation in values. The conservatism which has ever characterized the upbuilding of Milwaukee and her various industries has been a constant safeguard to the real estate interests, by keeping boom prices out of the question. So conservative have all classes interested been that prices have been kept below rather than above actual values, so that no person investing in real estate has found it necessary to wait until next year to get his money back, but has found it a constant earner of dividends on his investment. This could hardly be otherwise so long as the growth of manufacturing industries keeps ahead of the increase in population, as it has done for the past ten years and must continue to do for years to come, owing to the admirable location of Milwaukee as a central point toward which the raw materials—products of forest, field, flock and mine—of a vast portion of the country naturally gravitate and from which the perfected product is more cheaply and speedily transported to the consuming centers than from any other point in the Northwest.

The opportunities which Milwaukee offers for manufacturing of all kinds are not equaled by any other city in the West, nor are so many important industries being located at any one point. This insures continued stability to the real estate business and steadily increasing values of city and suburban properties, as well as a continuation of the people of Milwaukee in the ownership of their homes. Statistics upon that feature, as shown by the census of 1890, clearly demonstrate that in no large city in the United States does so large a percentage of the working classes own the homes which they occupy as in Milwaukee. It is a characteristic seemingly inherent with the wage earners of Milwaukee to be home-owners, and the rising generation readily inherits that spirit and puts it into practice. In this characteristic of the people is also found special inducements to

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The finances and business interests of a city are so closely allied that to yield the most ready comprehension they may be considered practically together, first looking into the financial feature.

Milwaukee has eleven banks, with a capital stock of \$2,400,000 and with surplus and undivided profits shown in their reports at the beginning of 1892 of \$2,425,069.93. Their deposits at the close of business for 1891 were \$29,000,000, of which \$27,000,000 were individual deposits and \$2,000,000 balances due country banks. Twenty years ago the annual individual deposits in the banks of Milwaukee—eleven in number, as now—were within the limit of \$5,000,000. The population of the city was then 70,000, and the average deposits were \$67 *per capita*. In 1891, with a population of 204,000, the average was \$132 *per capita*, counting all souls. This enormous increase in deposits and the high average *per capita* becomes doubly significant when it is considered that much of the increase in population was the result of immigration, and embraced a class whose capital was almost wholly confined to the muscle and intelligence which it brought to the operation of productive enterprises and the progress of municipal growth. The aggregate loans of Milwaukee banks for 1891 were \$22,000,000, and their practically dead capital kept in New York and other exchanges was \$12,000,000. One of the best informed bankers in the city is authority for the statement that the deposits in Milwaukee banks are much larger now than were those of all of the banks in the entire State ten years ago, and that the *per capita* average of deposits is considerably larger than those of Chicago. Milwaukee's nearness to Chicago brings her banks into close competition with those of that city, a feature of no little importance to those who depend in a measure upon borrowed capital for conducting business; yet it is not conducive of large profits to the banks. The banking capital of Milwaukee is almost wholly owned by resident citizens, and, as stated by the Hon. John Johnston, a leading banker, "Her merchants and manufacturers have so much capital of their own that they have no occasion to lean upon extraneous aid to any large extent." The total resources of each of the three National banks, as per their reports to the Comptroller of the Currency May 17, 1892, were as follows: First National Bank, \$4,012,571.63; National Exchange Bank, \$3,452,263.57; Milwaukee National Bank of Wisconsin, \$2,789,915.32. The resources of each of the six State banks, as per their semi-annual statement July 4, 1892, were as follows: Wisconsin Marine & Fire Insurance Company's Bank, \$9,058,455.67; Merchants Exchange Bank, \$5,073,017.11; Second Ward Savings Bank, \$5,320,301.87; Marshall & Ilsley Bank, \$3,081,501.48; Plankinton Bank, \$2,174,665.91; Commercial Bank, \$1,389,067.82; South Side Savings Bank, \$1,123,194.14.

The twelfth bank in Milwaukee—the Wisconsin National—has been organized with a capital stock of \$1,000,000, and will begin business with the coming year. Its organization causes no reduction in the capital stock of other banks in the city, and while there are abundant assurances that it will do a large volume of business, there is no reason to believe that it will result in any diminution in the business done by the present banks the past year, as the business which it will absorb will be more than provided in the increased volume of transactions resulting from the increasing manufacturing and mercantile industries of the city.

While the \$29,000,000 on deposit in the eleven banks in Milwaukee, at the time of their annual reports for 1891, was indeed a large sum, it fails to give a comprehensive idea of the volume of business done through those banks for that year. That is best indicated by the total deposits for the entire year, which reached the enormous aggregate of \$865,401,940.58, an increase of \$17,884,000 over the total deposits for 1890, when they exceeded those of 1889 by \$164,000,000. The following

CHANGES IN TEMPERATURES

The following table, furnished by the Milwaukee Chamber of Commerce, shows the total, monthly and annual deposits in Milwaukee banks for 1913-1914-1915.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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On the 20th of November, 1863, the author of the *North American Review* was showing the

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²² See, for example, the discussion of the 1990s in the section on the 'New Politics'.

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1. The following is a list of the names of the members of the Board of Directors of the Company, the date of their election, and the number of shares of stock held by each:

nation practically ceased and the railroads centering in Milwaukee made extensive additions to their facilities for handling grain. As a result, the total grain receipts at Milwaukee for 1891, including barley malt, amounted to 29,636,919 bushels, of which 15,554,810 bushels were re-shipped and the remainder consumed here or manufactured into its various products. The total receipts of grain and flour, with the flour reduced to bushels of wheat, were equal to 40,235,937 bushels and the shipments equaled 29,982,564 bushels. The receipts of wheat alone were 10,846,495 bushels and the shipments 2,764,412 bushels, leaving 8,220,411 bushels ground into flour in the mills of the city, an increase of 2,800,034 bushels over the consumption of 1890 in the flour mills of Milwaukee.

The milling capacity of Milwaukee is second only to that of Minneapolis in the United States, and exclusive of Minneapolis and St. Louis, the Milwaukee mills produced more than one-third of all the flour made in the mills of the United States in 1891, their output being 1,826,758 barrels, an increase of 429,719 barrels over the output of 1890. The Milwaukee flouring mills, and their capacity in barrels of flour every 24 hours, are as follows:

Phoenix Mill, E. Sanderson Milling Co.	2,000	barrels.
Duluth Roller Mills, Faist, Kraus & Co.	2,000	"
Eagle Mill, J. B. A. Kern & Sons.	2,000	"
Daisy Roller Mill.	1,500	"
Jupiter Mill, B. Stern & Son.	1,800	"
Reliance Mill, C. Manegold & Son.	700	"
Gem Mill, Gem Milling Co.	450	"
Total capacity 24 hours.	9,950	"

The total receipts of flour in Milwaukee in 1891 amounted to 2,537,273 barrels and the total shipments were 3,812,211 barrels. There were 564,620 barrels entering into the local trade and consumption, leaving 110,900 barrels in store at the end of the year. The receipts of flour in 1891 showed an increase of 136,038 barrels, and the shipments an increase of 610,598 barrels, as compared with the movement of 1890. The difference between the increase in shipments and the increase in receipts is accounted for by the increased production of the Milwaukee mills. The flour received here was mainly in transit for export or Eastern markets. Transactions in this market were almost exclusively confined to the product of local mills, with an occasional lot of country flour for retail trade.

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Barley, "	10,001,293	5,527,642
Oats, "	4,797,684	2,418,629
Rye, "	2,021,477	1,557,839
Corn, "	1,149,270	477,010
Total grain, bushels.	28,818,219	12,827,615
Flour reduced to bushels.	11,417,718	17,154,949
Total grain and flour.	40,235,937	29,982,564

MILWAUKEE—100 PHOTOGRAVURES.

table from the last report of the Chamber of Commerce shows the total monthly and annual deposits in Milwaukee banks for the last four years :

MONTH.	1891.	1890.	1889.	1888.
January	\$71,786,889.95	\$62,529,848.22	\$60,316,573.56	\$49,362,803.74
February	56,796,541.57	54,361,592.15	51,258,735.64	45,572,363.38
March	60,405,832.64	55,517,182.08	53,825,859.22	48,188,785.90
April	61,404,895.73	67,916,895.45	49,203,709.88	48,791,011.71
May	66,408,557.35	64,549,678.63	52,961,716.04	48,518,706.51
June	64,143,981.94	68,027,319.15	54,414,309.94	54,522,642.69
July	74,243,540.40	75,490,043.95	56,395,192.55	51,716,060.12
August	67,279,421.81	71,513,053.78	53,781,376.69	46,840,043.91
September	81,107,188.90	77,735,772.39	54,024,290.44	51,841,930.89
October	89,302,311.07	88,478,584.79	65,744,569.27	65,048,017.63
November	86,319,514.87	81,922,152.84	66,549,605.86	59,703,250.59
December	86,223,265.05	85,074,927.21	64,743,096.10	64,076,445.60
Total	\$865,401,940.58	\$847,517,053.54	\$683,219,035.69	\$634,132,062.67

The following compilation of four important features of the Milwaukee banks is of special interest, as showing the comparative conditions of business at the beginning of each of the two years which the figures represent:

	1892.	1891.
Deposits	\$29,647,919.33	\$24,568,247.60
Loans and discounts	21,674,254.18	17,310,646.33
Capital stock	2,350,000.00	2,200,000.00
Surplus and undivided profits	1,724,854.42	1,457,087.73

The following compilation is of special interest, as showing the total deposits in Milwaukee banks during the last eight years:

1891.....	\$865,401,940.58	1887.....	\$640,627,119.04
1890.....	847,517,053.51	1886.....	598,638,113.24
1889.....	683,219,335.69	1885.....	559,355,893.00
1888.....	634,132,062.67	1884.....	553,224,030.97

This shows the enormous increase in the deposits in eight years of \$312,177,909.51, or nearly 70 per cent.; and but fairly represents the growth of the city's industrial importance in that time.

MILWAUKEE'S GRAIN TRADE.

The grain trade in Milwaukee in 1891 was a surprise to even those entertaining the most sanguine expectations regarding it. For some years it had been declining somewhat, owing to discriminations, or at least seeming discriminations, on the part of transportation companies in favor of Chicago as a transferring and shipping point. But in 1891, on the opening of a direct line across the lake to St. Joe, Mich., connecting there with the trunk line railroads of the East and Southeast, the discrimi-

nation practically ceased and the railroads centering in Milwaukee made extensive additions to their facilities for handling grain. As a result, the total grain receipts at Milwaukee for 1891, including barley malt, amounted to 29,636,919 bushels, of which 15,554,810 bushels were re-shipped and the remainder consumed here or manufactured into its various products. The total receipts of grain and flour, with the flour reduced to bushels of wheat, were equal to 40,235,937 bushels and the shipments equaled 29,982,564 bushels. The receipts of wheat alone were 10,846,495 bushels and the shipments 2,764,412 bushels, leaving 8,220,411 bushels ground into flour in the mills of the city, an increase of 2,800,034 bushels over the consumption of 1890 in the flour mills of Milwaukee.

The milling capacity of Milwaukee is second only to that of Minneapolis in the United States, and exclusive of Minneapolis and St. Louis, the Milwaukee mills produced more than one-third of all the flour made in the mills of the United States in 1891, their output being 1,826,758 barrels, an increase of 429,719 barrels over the output of 1890. The Milwaukee flouring mills, and their capacity in barrels of flour every 24 hours, are as follows:

Phoenix Mill, E. Sanderson Milling Co.	2,000 barrels.
Duluth Roller Mills, Faist, Kraus & Co.	2,000 "
Eagle Mill, J. B. A. Kern & Sons.	2,000 "
Daisy Roller Mill.	1,500 "
Jupiter Mill, B. Stern & Son.	1,800 "
Reliance Mill, C. Manegold & Son.	700 "
Gem Mill, Gem Milling Co.	450 "
Total capacity 24 hours.	9,850 "

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MILWAUKEE—100 PHOTOGRAVURES.

GOVERNMENT REVENUES.

The receipts of the Milwaukee post-office for the fiscal year ending June 30, 1892, showed a net increase in revenue to the government over the preceding year of \$43,824.50, equal to 11 and 27-100 per cent. It indicated that the revenue of the office for the year 1892 would be fully five times that of 1870, notwithstanding the reduction in the meantime of letter postage from 3 cents per half ounce to 2 cents an ounce, and of newspapers and periodicals from 2 cents to 1 cent per pound. The business of the Milwaukee post-office is now the sixteenth among the 65,000 post-offices in the United States. The average dispatch of mail matter is 1,300,000 pieces a week, and the average delivery 900,000 pieces a week. The number of money order transactions was increased 3,970 during the fiscal year, and the increase in the amount issued and paid was \$6,114.47. The total money transactions of the office for the year were \$5,615,025.90. The increase in the registry business was \$37,343. These facts are substantial proof of the increasing population and business of the city.

Notwithstanding a reduction of 2 cents per pound in the tax on tobacco, and the abolition of the special tax on dealers in manufactured and leaf tobacco, and manufacturers of tobacco and cigars, the collections of United States internal revenue in this city for 1891 exceeded those of the previous year \$84,500. The total collections of internal revenue in the district for the fiscal year ending June 30, 1892, showed a handsome increase over those of the previous year, and amounted to \$3,310,401.40 against \$3,219,448.31 the previous year, and \$2,939,871.10 in 1890. The loss in revenue in the district resulting from reductions referred to was equal to about \$150,000. The following statement shows the quantities of the articles manufactured in the County of Milwaukee, subject to internal revenue tax during the calendar year 1891:

Beer, barrels.....	2,021,205	Tobacco, pounds.....	6,346,110
Spirits, gallons.....	495,401	Cigars, number.....	37,997,034

The receipts of customs duties at the Milwaukee Custom House for the fiscal years ending June 30, 1891 and 1892, do not make a favorable comparison, but there are good reasons for it. Receipts for the former year were \$392,331.17, and for the latter \$345,840.19. This deficiency of \$46,490.98 is directly chargeable to the McKinley tariff law. Had it not been for that measure the receipts for the fiscal year 1892 would have shown a handsome increase over those of 1891. But those of 1891 would not have been so large by over \$50,000, as is proven by the receipts of the month preceding the going into force of that bill. During that month the tin manufacturers received nearly their entire supply of importations of tin plate for a full year, thus saving to themselves the advance in duty which it imposed. The same is true of most of the extensive cigar manufacturers, who hurried in a year's supply of Sumatra leaf before the advance in the tariff went into effect. Aside from these lines all other sources of government revenue through the Custom House show a decided increase.

THE BREWING INDUSTRY.

Of the beer industry in Milwaukee, Secretary Langson, of the Chamber of Commerce, in his annual report of May, 1892, says:

"The most extensive single industry of Milwaukee is the manufacture of beer, and the magnificent buildings devoted to its production are the most conspicuous among the numerous manufacturing plants of the city. The tall chimneys of the big

breweries are marvels of architectural skill, and like the mammoth structures over which they tower, combine in an admirable degree the qualities of utility and beauty. It was fortunate for Milwaukee that this great industry is in the hands of men of good taste as well as great enterprise.

"The amount of beer manufactured by Milwaukee brewers in 1891 reached the enormous total of 2,012,573 barrels, and their actual sales 1,993,941 barrels, representing an approximate money value of \$12,200,000. In the manufacture of this product 2,400 men were employed, and the sum of \$1,500,000 disbursed as wages. The materials purchased by the brewers included 3,112,487 bushels of barley and 2,114,443 pounds of hops. The product and sales of each of the Milwaukee breweries for the calendar year 1891, and the total annual product and sales for the past seven years, are shown by the following statement:

BREWING ESTABLISHMENTS.	Brewed, Barrels.	Sales, Barrels.
Pabst Brewing Company.....	804,548	790,290
Joa. Schlitz Brewing Company.....	562,681	547,196
Val. Blatz Brewing Company.....	230,062	249,766
Falk, Jung & Borchert Brewing Company.....	175,848	171,500
Fred Miller Brewing Company.....	123,789	126,278
Jacob Obermann Brewing Company.....	47,760	44,000
A. Gettelman Brewing Company.....	33,900	33,041
Cream City Brewing Company....	33,985	31,870
 Totals, 1891.....	 2,012,573	 1,993,941
" 1890.....	1,928,082	1,800,758
" 1889.....	1,530,461	1,501,638
" 1888.....	1,348,447	1,318,583
" 1887.....	1,283,432	1,275,641
" 1886.....	1,203,879	1,186,882
" 1885.....	1,117,256	1,084,819

The Pabst Brewing Company has a world-wide reputation. A capital of \$12,000,000 is invested in the manufacturing plant. The annual product exceeds \$6,000,000 in value, using \$2,500,000 worth of raw material. The annual production in 1885 amounted to but \$2,500,000. The company's officers are: Fred Pabst, president; Mrs. L. Schandein, vice-president; G. G. Pabst, secretary.

One of the great beer breweries of Milwaukee is the Joseph Schlitz Brewing Company. It was established by Joseph Schlitz in 1849, and incorporated as a stock company in 1874. The plant is now valued at \$10,000,000. A new \$300,000 brew-house, just completed, will increase the capacity of the establishment to 1,000,000 barrels per annum. The present officers are: Henry Uihlein, president; August Uihlein, secretary; and Alfred Uihlein, superintendent.

The celebrated beers known as "Tivoli," "Wiener," "Pilsener," Pale "Lager" and "Muenchener," are produced by the Val. Blatz Brewing Company. A large new refrigerator building has just been added to the plant of this establishment, which is constantly increasing the number of its buildings.

MILWAUKEE—100 PHOTOGRAVURES.

The Falk, Jung & Borchert Brewing Company, operating an extensive plant just west of the city limits, has been peculiarly unfortunate. In July, 1890, a large portion of its plant was burned. It was promptly rebuilt and fitted with the most modern appliances. In August, 1892, fire took possession of the works again, causing destruction amounting to \$200,000. But the same energy which established the business and rebuilt the plant two years previous is again at work, and in the least possible time it will be rebuilt and in operation again. Its production last year was 171,500 barrels.

The Fred. Miller Brewing Company, established in 1848, has a substantial plant and does what anywhere, except beside the greatest breweries in the world, would be regarded an enormous business. The plant is worth about \$200,000, and the company is fast progressing in the scale of large production and prominence in the business world. In 1891 it produced 126,000 barrels of beer.

Jacob Obermann established the J. Obermann Brewing Company in 1852, and since that date the establishment has steadily grown in size and importance. It has now a plant valued at \$500,000, and each year its products show a decided increase in value. The officers are : President, Fred. J. Obermann ; vice-president, George J. Obermann ; secretary, Phil. Obermann ; assistant secretary, Gus. Obermann ; superintendent, Herman Obermann.

The A. Gettelman Brewing Company caters largely to home trade, of which it receives its full share. Its product in 1891 was 31,870 barrels. Though the great breweries of the city now overshadow the smaller ones, they can all look back to modest beginnings, when they were not greater than the present small ones ; yet a cordial feeling of reciprocity exists among them.

The Cream City Brewing Company is of more recent origin, though the original concern out of which it sprung dates back to 1853, the reorganization and present name coming into existence in 1879. It has a good home trade, and in 1891 brewed 33,041 barrels of beer.

METAL WORKING ESTABLISHMENTS.

No corner of the iron producing or consuming world is so remote as not to be familiar with the Illinois Steel Company's great plant in Bay View, one of the most important of Milwaukee's industries. Its vast supplies come direct by lake from the great coal docks of the East and the iron ore mines of the North, to be manufactured here into bar and band iron, round, flat and square ; bar and band steel, round, flat and square ; angles, channels, saw-mill track, plow billets, cultivator bars, tee-rails, shafting iron and steel, iron and steel splices, and foundry and mill pig iron. The Company's office in Milwaukee is at 151 New Insurance building ; in Chicago in "The Rookery."

There are few users of mining and other heavy machinery in the civilized world who are not familiar with the Reliance Iron Works of the Edward P. Allis Company of Milwaukee. Though but a small industry when founded by the late Edward P. Allis, it has grown to be one of the largest institutions of the kind in the world, and has a world-wide reputation. It stands in the front rank as a producer of engines of all kinds, including those used in the great mines of the world, in blast furnaces, pumping stations, etc. Its business has grown from \$30,000 a year at the beginning, to more than \$3,000,000 a year now.

There are few more important machinery producing concerns in this country than the Hoffmann & Billings Manufacturing Company, extensive manufacturers of improved Corliss engines, condensing, non-condensing, compound and triple-expansion

sion engines, all kinds of improved boiler feed-pumps, and supplies for brewers and steam and gas fitters. The business, established in 1855 in a small way, has grown until the plant alone represents a value of over \$350,000, and the annual product exceeds \$1,000,000 in value, reaching all important markets from New York to San Francisco. The officers are: John C. Hoffmann, president; B. Hoffmann, vice-president; J. B. Kalvelage, secretary and treasurer.

The tin factory of Kieckhefer Bros. & Co. is the leading institution of its kind in the United States. It produces all kinds of plain tin, retinned, japanned, stamped and galvanized tinware. Its 100 tin-stamping presses, varying from 300 to 70,000 pounds in weight and turning out every variety of pressed tinware in use, are run by a 200 horse-power Corliss engine. The value of the plant exceeds \$200,000, and the annual product runs close to \$1,000,000 in value. Ferdinand and William Kieckhefer and Sebastian Walter are the proprietors. They have an extensive branch house in Chicago, and the product of their works reaches the markets of the world.

One of the prominent malleable iron works of the United States, and one which has given Milwaukee much prominence as a producer of that class of material, is the Wisconsin Malleable Iron Company, organized in 1879, and which has kept pace with the demand for this class of goods until its capacity has been increased fully tenfold, and there are but few works of the kind in the United States that rank with it. The Northwestern Malleable Iron Company is an establishment of the same class, although of more recent origin. It is doing a large business, and is fairly launched on the highway of prosperity.

One of the most substantial and long established jobbing concerns in iron, steel, carriage and wagon hardware, wood-work and trimmings in the Northwest is the Shadbolt & Boyd Iron Company. It was founded when Milwaukee was but a small town and has grown and progressed with the city itself, enjoying an extensive business and an enviable reputation in the business world. The officers of the company are: Francis Boyd, president; F. R. Ellis, vice-president; and Henry B. Hunter, secretary and treasurer.

One of the important young institutions of Milwaukee is the Fuller-Warren Stove Works, a Western branch of the great concern by the same name in Troy, N. Y. It has an extensive plant of the most modern class, and is producing all kinds of stoves, ranges and heating apparatus. This is its first full year in business here and its product will run close to, and may exceed \$1,000,000 in value. Walter P. Warren is president; H. A. Viets, vice-president; C. W. Jones, secretary; and J. E. Potter, treasurer. A large amount of local capital is interested in the business.

The Geuder & Paeschke Manufacturing Company produces all kinds of pieced, stamped and japanned tinware, and black and galvanized sheet-iron goods. The factory of the Company is a five-story brick building full of the latest improved machinery for the rapid production of tin and sheet-iron ware of all kinds. The Company has an enviable reputation for energy and fair dealing, and its future is bright.

The Moore Manufacturing Company is one of the rapidly growing and important industries of Milwaukee. It is young, having been established in 1888, but already yields an annual product of nearly \$250,000. It produces a vast variety of light castings, including hot-air registers, locks, door hangers, pulley blocks, etc. It has an investment of \$100,000 in its plant, and is officered with F. G. Moore as president; M. H. Brand, vice-president; M. A. Boardman, treasurer; and V. M. Moore, secretary.

The Weisel & Vilter Manufacturing Company, with \$150,000 invested in its plant, is turning out an annual product

MILWAUKEE—100 PHOTOGRAVURES.

worth \$500,000. It manufactures Corliss engines, refrigerating and ice-making machinery of all kinds, and brewers' and bottlers' machinery. Its field of sales covers the United States, Europe, Mexico and South America. Theo. O. Vilter is president of the company, Albert Wallber vice-president, and William O. Vilter secretary and treasurer.

The steam navigators of the fresh and salt waters of the world are familiar with the celebrated propeller wheels produced by the Sheriffs Manufacturing Company, but doubtless few of them are aware that the justly popular wheels are manufactured in Milwaukee. The company furnishes a majority of the wheels for all first-class propellers on the great lakes. It also produces steam and oil pumps, engine supplies, iron and brass castings, and portable and stationary engines of various kinds.

Among the iron working establishments of the West the Milwaukee Boiler Works occupy a prominent position in the production of stationary and marine boilers. The latter are made a special feature of the works, and the marked success in making quick and safe trips on the great lakes by many of the leading steamers is largely attributed to the excellence of the boilers obtained at this establishment.

Among the manufacturers of intricate and perfect machinery there are few firms in this country that enjoy so enviable a reputation as do Messrs. Pauling & Harnischfeger. They make a specialty of fine and technical machinery, and also make a general line of machines of various kinds, operating an extensive foundry in connection with their machine-shops.

OTHER LEADING CONCERNs.

The extensive works of the Rundle & Spence Manufacturing Company, with a \$350,000 plant, including a complete brass foundry and producing all kinds of gas and steam fitters' supplies, is one of the leading institutions in the Northwest. Its annual product of \$200,000 in value five years ago, has increased to over \$600,000 a year now, and includes almost everything in brass, iron, copper and malleable goods used by steam fitters. The growth of business necessitated the opening of a branch house in Chicago at the beginning of 1892. A specially fine line of sanitary goods is one feature of its recently added productions.

In 1847, when Milwaukee was but a mere village, Henry and Elias Friend established the Friend Bros. Clothing Company, which has since been incorporated as a stock company, and is turning out over \$700,000 worth of manufactured clothing annually. In the commodious building owned and occupied by them, \$350,000 worth of these goods are manufactured each year. The entire Northwest is covered by the representatives of the firm placing its product in the hands of retailers.

Among the important manufacturing concerns of the city is the F. Mayer Boot & Shoe Company. Its specialties are Wisconsin oil grain goods and ladies' and misses' fine shoes. In the leather trade the Company is regarded as one of the most progressive concerns of the kind in Milwaukee.

Among Wisconsin's most extensive wood-working establishments is the Conway Cabinet Company of Milwaukee. It does an extensive business in the manufacture of wood mantels and its jobbing trade in these goods, as well as in grates, tiles and brass goods, is extensive. It also does a large retail business at 421 Broadway.

One of the greatest tobacco manufactories of this country is that operated by the F. F. Adams Tobacco Company, established in Milwaukee in 1847. The ground area covered by the works is over 19,000 square feet, and floor space rounds up over

76,000 square feet, giving large space for sorting, cutting, storing and packing rooms. The Company handles 10,000 pounds a day, and over 3,000,000 pounds annually, getting its supply direct from Kentucky and selling the manufactured product by shipment to nearly every considerable city in the United States. The product includes numerous leading brands of smoking and several choice brands of fine-cut. The establishment is a fitting monument to the energy and integrity of the man whose name it bears and who is daily active in the management of the business.

Among the leading carpet establishments of the Northwest is the house of Stark Bros. Company, known throughout Wisconsin and the adjoining States as a safe and reliable place at which to secure anything wanted in the line of carpets, draperies, lace curtains, mattings, rugs, Venetian blinds, Moorish fret-work, etc. It is a house of which thousands of tasty housekeepers all over the Northwest are proud, as they view the furnishings of their own homes.

No dry goods concern of the country is more complete in all departments than the great house of T. A. Chapman Co. Though that sturdy New Englander, Timothy A. Chapman, who founded it many years ago, has passed on to that reward which follows a life of uprightness and usefulness, the business still goes forward, a monument to his name and a pride to all Milwaukee, as well as thousands not so fortunate as to call this beautiful city their home.

The extensive wholesale grocery trade of Milwaukee, aggregating more than \$12,000,000 a year, is fittingly represented by the house of Mendel, Smith & Co., which has few equals in its line in the Northwest. Its specialties are all leading lines of groceries, all foreign articles being imported direct by the firm. The name of Mendel, Smith & Co. has been, for years, a synonym for stability and reliability everywhere throughout the Northwest. This firm has done not a little to add to Milwaukee's enviable reputation as a business center.

One of the leading industries of Milwaukee is the packing of pork, the chief portion of which is done by Cudahy Bros., Patrick Cudahy being the resident head and manager of the business. One year hence the firm will be doing business in its new plant at Cudahy station, two miles south of the city limits. The new plant will be one of the most complete in the country; the buildings alone, now in process of construction, costing over \$1,000,000. The stock-yards will be complete in every respect, and the works will have a capacity for handling 6,000 hogs and 1,500 beef cattle daily. The new town of Cudahy bids fair to have a population of 3,000 to 5,000 within a year. The establishing of a new packing-house plant and new town by Mr. Cudahy is one of the most gigantic enterprises yet undertaken in the West.

The firm of Goldsmith & Co., of which Bernard Goldsmith is the head, is one of the leading houses in the Northwest, dealing in carpets, draperies and everything which goes to make up a complete establishment of that kind. The business will soon be extended to even greater proportions when it is removed to the new six-story building just erected on the corner of Wisconsin and Jefferson streets, opposite the site of the new government building, at a cost of several hundred thousand dollars. By many years of persistent toil Mr. Goldsmith has justly earned the position he occupies as a leader in his line of business.

The Steinman Lumber Company, H. J. Steinman, president and treasurer, and Albert C. Fischer, secretary, is one of Milwaukee's most extensive lumber dealing concerns. Lumber of all kinds is handled in large quantities, being obtained direct from the producing regions of Northern Wisconsin. The firm has an extensive trade outside of the city, as well as with the leading city contractors and builders.

Of the many wholesale drug concerns of the country, there are few so extensive or so completely occupying a large region of country in their trade, as does that of the Chas. Baumbach Co. It is an establishment of vast proportions, and the stock of all articles in the line of drugs, paints, oils and glass is one of the largest to be found anywhere. It is one of the oldest and best known houses of the kind in the West, and its patronage is very large.

The Gem Hammock and Fly Net Company is one of Milwaukee's comparatively young industries, but it has already won a prominent place in the production of hammocks and horse fly-nets of an almost endless variety. Like many other manufacturing concerns that have been established in Milwaukee, it has found the field a profitable one, and the demand for its products has necessitated frequent enlargements in its productive capacity.

There are many soap factories in Milwaukee and other points in the West, but to Rickers & Company belongs the honor of being called the largest and most extensive. The Company is composed of John S. and J. Herbert Ricker. Their specialties are fine cocoanut oil and laundry soaps, which they produce in large quantities, and cover the markets of a vast region of country with their products, which are popular everywhere.

Among the many manufacturers of boots and shoes in Milwaukee none enjoy a more enviable reputation than do the Beals & Torrey Co. They make extensively of all general lines of footwear, and are constantly moving toward the front rank of manufacturers of those goods.

Of all the straw works in this country there is no other concern so extensive as the Northwestern Straw Works of Milwaukee. The product embraces all kinds of ladies' and gentlemen's hats, and the quantity produced supplies a large portion of the trade of the country. The works are so extensive and so well managed that they are able to not only compete successfully with all others in their line, but to actually lead all in the markets of the world.

The E. Sanderson Milling Company, William Sanderson, president; Howard Sanderson, vice-president; and Harry B. Sanderson, secretary and treasurer, is one of the largest and leading concerns of the kind in the West. Its capacity is 2,000 barrels of flour every twenty-four hours, and it is run in full force constantly.

The Eagle Mills, owned and operated by J. B. A. Kern & Sons, is always pressed to its full capacity of 2,000 barrels a day. Its specialties are choice spring wheat flour from hard Dakota and Minnesota grain. The firm also makes a special feature of choice rye flour.

The Daisy Roller Mills runs largely on spring wheat flour, of which it produces 1,500 barrels daily. Its favorite brands are "Tip-Top," "Butterfly," "Jewel," "Best," and "Vienna." Edwin Reynolds is president of the Company; W. D. Gray, vice-president; L. R. Hurd, secretary and manager; W. W. Allis, treasurer.

One of the great developers of nature's resources into commercial shape is the Milwaukee Cement Company, which, from an abundant supply of cement rock existing just north of the city limits, is manufacturing upwards of 500,000 barrels of choice cement annually, with which many of the leading markets of the world are supplied. The Company has come safely through an extensive controversy with combinations of cement manufacturers of other parts of the country and holds its ground completely, owing largely to the superior quality of its product and its straightforward manner of doing business. The table of Milwaukee Manufactures, published on a preceding page, gives some idea of the importance of this concern.

The Wisconsin Trust Company, of Milwaukee, does a general trust business, and has a fully paid-up capital of \$100,000. It acts as trustee, assignee, receiver, executor, administrator and guardian of estates, minors and trust funds. It is incorporated under the laws of the State, and numbers among its stockholders many of the most substantial capitalists and business men of the city. It loans money on real estate security, buys and sells securities suitable for trust funds, and invests the money of corporations and others in accordance with directions given. Its officers are: Frederick N. Finney, president; Samuel M. Green, vice-president; Andrew A. Hathaway, secretary; Edward Ferguson, treasurer; John M. W. Pratt, trust officer. It was established in 1890, and is located at 112 Mason street.

A NOTABLE FINANCIAL INSTITUTION.

The Northwestern Mutual Life Insurance Company is one of the leading institutions of its kind in the United States. It is one of the strongest financial institutions in the country, and has for years been a most potent factor in making the name of Milwaukee favorably known among financiers everywhere. The assets of the Company January 1, 1892, were \$48,826,755.45. Of this sum \$40,718,057.41 was at that time loaned on bond and mortgage on real estate securities valued at \$126,458,446.21. No loans have ever been made on collaterals or stocks of any kind. In consequence the fluctuations of values in the great commercial centers have no effect on its securities. Of all the large companies, the Northwestern is the only one without a dollar loaned on fluctuating securities. The progress of the Company, while always showing healthy growth, has for the last decade been almost phenomenal. For every working day of the year 1891 this Company paid over \$7,000 for losses by death among its membership. Notwithstanding these large figures, the death loss ratio of the Company for the year was but eighty-nine one-hundredths of 1 per cent. of the mean amount in force. The surplus over a 4 per cent. reserve is \$7,891,790.55. The whole number of policies in force January 1, 1892, was 113,528, amounting to \$275,674,753, an increase for the year of 15,003 policies and \$36,765,946 insurance.

THE PRESS.

One of the influences which has contributed much to the growing greatness of Milwaukee is the enterprise of its daily newspapers. The *Sentinel* is the only morning English paper in the city, and there seems little need of another. It is backed by abundant capital, and its enterprise in supplying the people of the city and State with the latest news every morning in the year is proverbial. It is known throughout the Northwest as one of the ever staunch Republican papers of the country. Its outfit is one of the most complete in the country, and one year hence it will occupy a new ten-story building of its own.

The *Evening Wisconsin* is the leading evening newspaper of the State, and covers the field well. Its household department is one of its strong features and serves to make it a welcome daily visitor in a majority of the leading English-speaking homes of the city. Its columns are a daily epitome of the news of the State and country. It is Republican in politics, and has the field of that faith to itself as an evening paper.

The *Daily Journal* is the leading Democratic daily of the State, and is rapidly gaining a national reputation. It recently took possession of one of the finest modern offices in the West, and is winning that patronage which abundant enterprise richly merits.

Though the youngest of the English daily papers, the *Daily News* has already attained an enviable position in the field of journalism.

The *Germania*, as a daily, is but one year old, but already occupies an important position. The *Weekly Germania* is one of the most widely circulating newspapers in the United States. It is the recognized organ of the Lutheran church in the West, and as such has an extensive field practically to itself. Its chief owner is George Brumder, whose well-known enterprise has made it the power that it is in Wisconsin and other Western States.

The *Milwaukee Herold* is the leading German daily newspaper of the West, and one of the most enterprising in the United

States. It is generally acknowledged as the best German newspaper in this country, and its circulation is second only to one other—a New York publication. Through its press dispatches and its special correspondents in Europe it gives its readers the news of the world daily.

The *Daily Seebote* is an ably conducted German Democratic paper, and the *Abend-Post*, an evening German daily, is rapidly coming to the front as an energetic champion of Republican principles.

The *Kuryer Polski*, Democratic, circulates largely among the Polish population.

The *Arbeiter Zeitung* is issued every evening, and strongly advocates socialistic principles.

Besides its numerous daily papers, Milwaukee can boast of several distinctively weekly papers, whose ability and enterprise have been important factors in the upbuilding of the city.

The *Milwaukee Telegraph* has long held high rank among Milwaukee newspapers, and is justly regarded as the ablest representative of the Grand Army of the Republic in the Northwest.

Yenowine's News is largely devoted to society affairs and is known as the most beautifully illustrated paper in the State.

Peck's Sun is known the world over as one of America's leading humorous papers. It is now edited by Geo. W. Peck, Jr., son of Gov. Geo. W. Peck.

The *Saturday Star* is an eminently successful weekly paper, making a specialty of local and general county news.

The *Domacnost*, published weekly by Ant. Novak, is the leading Bohemian paper of the Northwest.

AN ACKNOWLEDGMENT.

THOUGH only about three months have elapsed since plans were perfected for the publication of this volume, the Milwaukee Real Estate Board presents to the public a work whose excellence requires no eulogium—which has but to be seen to be admired. It has been the aim of the Board from the first in issuing "Milwaukee—One Hundred Photogravures," to portray Milwaukee as it is. The photographer's camera is an impartial reflector of the actual. Every defect as well as every perfection of beauty within its vision is clearly outlined with inexorable exactness. Knowing this to be true, we have no misgivings in having Milwaukee judged by the representations of her business blocks, residences, factories, and street scenes herein contained. The historical and descriptive matter of this volume has been written by two men exceptionally well qualified to perform this service. Their articles are fair and candid statements relative to the subjects of which they treat, and an honest setting forth of solid facts concerning the Cream City's marvelous development.

To make possible the publication of a work at once so artistic and expensive, public-spirited members of the Milwaukee Real Estate Board raised a guarantee fund sufficient to cover the cost. That their enterprise has been appreciated by other business men in the community is shown by the fact that many of the leading manufacturers, bankers and merchants have contributed largely to the expense of publishing the work, though not expecting to receive therefrom any direct benefit in the way of advertising. Not one line of individual advertising appears in this work. That this is a fact is indeed a high compliment to the enterprise and public spirit of Milwaukee's real estate dealers and other business men, who have generously contributed to the success of this undertaking. The Milwaukee Real Estate Board desires to express its sincere thanks to all public-spirited citizens who have cheerfully co-operated in this matter.

If the publication of "Milwaukee—One Hundred Photogravures" serves to arouse on the part of those who may peruse its pages, a livelier appreciation of the Cream City's numerous advantages as a commercial, industrial, and residence city, the purpose of its compilers will have been fully attained.

J. C. BARTHOLF,
Secretary.

BENJ. M. WEIL,
President.



John M. C. - 1862 - M. C. - 1862





SCENE ON MILWAUKEE RIVER.



MILWAUKEE—100 PHOTOGRAVURES.

manufacturers to establish industries here. With a settled population they do not have to depend upon the floating element to keep their mills in operation, consequently they are and ever have been comparatively free from labor troubles, which have seriously interfered with the industries of other manufacturing centers. So important has the real estate business of Milwaukee become that the secretary of the Chamber of Commerce made room in the crowded pages of his annual report for 1891 for the following:

"One of the best indications of the growth and prosperity of Milwaukee is furnished by the continued activity and enhanced value of real estate, not only within the limits of the city, but in all the territory surrounding it for miles beyond. The people who expected that the great 'boom' of 1890 would be followed by a reaction, made a greater mistake than those who supposed that values had reached the top for many years to come in 1889. On the contrary, that was only the beginning of the upward movement. Desirable inside property has advanced steadily from year to year with a better demand and greater confidence in values than has ever before been known in the history of Milwaukee, while outlying and suburban property has risen from 50 to 100 per cent. annually for the last three years. The success of the electric street railway system was one of the chief factors in enhancing the value of outside property, enabling mechanics and working people of all classes living in the remotest parts of the city to travel between their homes and places of employment with the least possible delay and expense, the basis of the whole movement being the wonderful development of the manufacturing industries of the city and consequent increase of population."

Careful investigation reveals the fact that Milwaukee homes and business houses are seldom mortgage-ridden, and that the property owners of the city are slow to contract debts; also, that when they do contract debts they pay them promptly. Foreclosures of mortgages on real estate are not frequent. One of the oldest and most extensive real estate dealers in the city said very recently that in his active and extensive experience of over twenty-five years he had never foreclosed a mortgage on real estate. In speaking of this feature of the real estate business, Benjamin M. Weil, in the book just published by the Association for the Advancement of Milwaukee, says:

"This characteristic is clearly proven by the observation of the writer, who had occasion a few years since to examine the records of this county as to the mortgage indebtedness on property located on the main business street of this city. As a result of this investigation it was found that there were only twelve mortgages on record against property on both sides of this street for a distance of over one mile. It may well be doubted if any other city in this country could make a showing so creditable in this regard."

MILWAUKEE'S BANKS.

The stability of any great business center may be best measured by the strength, prosperity and reliability of its banking institutions, together with the degree to which they are depended upon by the local business industries. In the latter feature is clearly mirrored the extent to which the manufacturing and commercial institutions are able to do business upon their own capital. There is much truth in the axiom that paying interest on working capital constitutes the leak which unships many a business enterprise. The facts will abundantly bear out the statement that the large business concerns of Milwaukee use less tribute-drawing capital than do those of any other city in the country doing an equal volume of business.

The finances and business interests of a city are so closely allied that to yield the most ready comprehension they may be considered practically together, first looking into the financial feature.

Milwaukee has eleven banks, with a capital stock of \$2,400,000 and with surplus and undivided profits shown in their reports at the beginning of 1892 of \$2,425,069.93. Their deposits at the close of business for 1891 were \$29,000,000, of which \$27,000,000 were individual deposits and \$2,000,000 balances due country banks. Twenty years ago the annual individual deposits in the banks of Milwaukee—eleven in number, as now—were within the limit of \$5,000,000. The population of the city was then 70,000, and the average deposits were \$67 *per capita*. In 1891, with a population of 204,000, the average was \$132 *per capita*, counting all souls. This enormous increase in deposits and the high average *per capita* becomes doubly significant when it is considered that much of the increase in population was the result of immigration, and embraced a class whose capital was almost wholly confined to the muscle and intelligence which it brought to the operation of productive enterprises and the progress of municipal growth. The aggregate loans of Milwaukee banks for 1891 were \$22,000,000, and their practically dead capital kept in New York and other exchanges was \$12,000,000. One of the best informed bankers in the city is authority for the statement that the deposits in Milwaukee banks are much larger now than were those of all of the banks in the entire State ten years ago, and that the *per capita* average of deposits is considerably larger than those of Chicago. Milwaukee's nearness to Chicago brings her banks into close competition with those of that city, a feature of no little importance to those who depend in a measure upon borrowed capital for conducting business; yet it is not conducive of large profits to the banks. The banking capital of Milwaukee is almost wholly owned by resident citizens, and, as stated by the Hon. John Johnston, a leading banker, "Her merchants and manufacturers have so much capital of their own that they have no occasion to lean upon extraneous aid to any large extent." The total resources of each of the three National banks, as per their reports to the Comptroller of the Currency May 17, 1892, were as follows: First National Bank, \$4,012,571.63; National Exchange Bank, \$3,452,263.57; Milwaukee National Bank of Wisconsin, \$2,789,915.32. The resources of each of the six State banks, as per their semi-annual statement July 4, 1892, were as follows: Wisconsin Marine & Fire Insurance Company's Bank, \$9,058,455.67; Merchants Exchange Bank, \$5,073,017.11; Second Ward Savings Bank, \$5,320,301.87; Marshall & Ilsley Bank, \$3,081,501.48; Plankinton Bank, \$2,174,665.91; Commercial Bank, \$1,389,067.82; South Side Savings Bank, \$1,123,194.14.

The twelfth bank in Milwaukee—the Wisconsin National—has been organized with a capital stock of \$1,000,000, and will begin business with the coming year. Its organization causes no reduction in the capital stock of other banks in the city, and while there are abundant assurances that it will do a large volume of business, there is no reason to believe that it will result in any diminution in the business done by the present banks the past year, as the business which it will absorb will be more than provided in the increased volume of transactions resulting from the increasing manufacturing and mercantile industries of the city.

While the \$29,000,000 on deposit in the eleven banks in Milwaukee, at the time of their annual reports for 1891, was indeed a large sum, it fails to give a comprehensive idea of the volume of business done through those banks for that year. That is best indicated by the total deposits for the entire year, which reached the enormous aggregate of \$865,401,940.58, an increase of \$17,884,000 over the total deposits for 1890, when they exceeded those of 1889 by \$164,000,000. The following

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table from the last report of the Chamber of Commerce shows the total monthly and annual deposits in Milwaukee banks for the last four years :

MONTH.	1891.	1890.	1889.	1888.
January	\$71,786,889.95	\$62,529,848.22	\$60,316,573.56	\$49,362,803.74
February	56,796,541.57	54,361,592.15	51,258,735.64	45,572,863.38
March	60,405,832.64	55,517,182.98	53,825,859.22	48,138,785.90
April.....	61,404,895.73	67,916,895.45	49,203,709.88	48,791,011.71
May.....	66,408,557.35	64,549,678.63	52,961,716.04	48,518,706.51
June	64,143,981.94	68,027,819.15	54,414,309.94	54,522,642.69
July.....	74,243,540.40	75,490,043.95	56,395,192.55	51,716,060.12
August.....	67,279,421.31	71,513,053.78	58,781,376.69	46,840,043.91
September.....	81,107,188.90	77,735,772.39	54,024,290.44	51,841,930.89
October.....	89,302,811.07	88,478,584.79	65,744,569.27	65,048,017.63
November.....	86,819,514.67	81,922,152.84	66,549,605.96	59,703,250.50
December.....	86,223,265.05	85,074,927.21	64,743,096.10	64,076,445.60
Total.....	\$865,401,940.58	\$847,517,053.54	\$683,219,035.69	\$634,182,062.67

The following compilation of four important features of the Milwaukee banks is of special interest, as showing the comparative conditions of business at the beginning of each of the two years which the figures represent:

	1892.	1891.
Deposits.....	\$29,647,919.33	\$24,568,247.60
Loans and discounts.....	21,674,254.18	17,310,646.33
Capital stock.....	2,350,000.00	2,200,000.00
Surplus and undivided profits.....	1,724,854.42	1,457,087.76

The following compilation is of special interest, as showing the total deposits in Milwaukee banks during the last eight years:

1891.....	\$865,401,940.58	1887.....	\$640,627,119.04
1890.....	847,517,053.51	1886.....	598,638,113.24
1889.....	683,219,335.69	1885.....	559,355,893.00
1888.....	634,182,062.67	1884.....	553,224,030.97

This shows the enormous increase in the deposits in eight years of \$312,177,909.51, or nearly 70 per cent.; and but fairly represents the growth of the city's industrial importance in that time.

MILWAUKEE'S GRAIN TRADE.

The grain trade in Milwaukee in 1891 was a surprise to even those entertaining the most sanguine expectations regarding it. For some years it had been declining somewhat, owing to discriminations, or at least seeming discriminations, on the part of transportation companies in favor of Chicago as a transferring and shipping point. But in 1891, on the opening of a direct line across the lake to St. Joe, Mich., connecting there with the trunk line railroads of the East and Southeast, the discrimi-

nation practically ceased and the railroads centering in Milwaukee made extensive additions to their facilities for handling grain. As a result, the total grain receipts at Milwaukee for 1891, including barley malt, amounted to 29,636,919 bushels, of which 15,554,810 bushels were re-shipped and the remainder consumed here or manufactured into its various products. The total receipts of grain and flour, with the flour reduced to bushels of wheat, were equal to 40,235,937 bushels and the shipments equaled 29,982,564 bushels. The receipts of wheat alone were 10,846,495 bushels and the shipments 2,764,412 bushels, leaving 8,220,411 bushels ground into flour in the mills of the city, an increase of 2,800,034 bushels over the consumption of 1890 in the flour mills of Milwaukee.

The milling capacity of Milwaukee is second only to that of Minneapolis in the United States, and exclusive of Minneapolis and St. Louis, the Milwaukee mills produced more than one-third of all the flour made in the mills of the United States in 1891, their output being 1,826,758 barrels, an increase of 429,719 barrels over the output of 1890. The Milwaukee flouring mills, and their capacity in barrels of flour every 24 hours, are as follows:

Phoenix Mill, E. Sanderson Milling Co.	2,000 barrels.
Duluth Roller Mills, Faist, Kraus & Co.	2,000 "
Eagle Mill, J. B. A. Kern & Sons.	2,000 "
Daisy Roller Mill.	1,500 "
Jupiter Mill, B. Stern & Son.	1,800 "
Reliance Mill, C. Manegold & Son.	700 "
Gem Mill, Gem Milling Co.	450 "
Total capacity 24 hours.	9,950 "

The total receipts of flour in Milwaukee in 1891 amounted to 2,537,273 barrels and the total shipments were 3,812,211 barrels. There were 564,620 barrels entering into the local trade and consumption, leaving 110,900 barrels in store at the end of the year. The receipts of flour in 1891 showed an increase of 136,038 barrels, and the shipments an increase of 610,598 barrels, as compared with the movement of 1890. The difference between the increase in shipments and the increase in receipts is accounted for by the increased production of the Milwaukee mills. The flour received here was mainly in transit for export or Eastern markets. Transactions in this market were almost exclusively confined to the product of local mills, with an occasional lot of country flour for retail trade.

The total receipts of barley at this market in 1891 were 10,001,293 bushels and the shipments were 5,527,642 bushels, leaving 4,506,083 bushels absorbed by local maltsters. The following table shows the receipts and shipments of grain and flour at this market for 1891 :

	Receipts.	Shipments.
Wheat, bushels.	10,846,495	2,764,412
Barley, "	10,001,293	5,527,642
Oats, "	4,797,684	2,418,629
Rye, "	2,021,477	1,557,830
Corn, "	1,149,270	477,010
Total grain, bushels.	28,818,219	12,827,615
Flour reduced to bushels.	11,417,718	17,154,949
Total grain and flour.	40,235,937	29,982,564

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GOVERNMENT REVENUES.

The receipts of the Milwaukee post-office for the fiscal year ending June 30, 1892, showed a net increase in revenue to the government over the preceding year of \$43,824.50, equal to 11 and 27-100 per cent. It indicated that the revenue of the office for the year 1892 would be fully five times that of 1870, notwithstanding the reduction in the meantime of letter postage from 3 cents per half ounce to 2 cents an ounce, and of newspapers and periodicals from 2 cents to 1 cent per pound. The business of the Milwaukee post-office is now the sixteenth among the 65,000 post-offices in the United States. The average dispatch of mail matter is 1,300,000 pieces a week, and the average delivery 900,000 pieces a week. The number of money order transactions was increased 3,970 during the fiscal year, and the increase in the amount issued and paid was \$6,114.47. The total money transactions of the office for the year were \$5,615,025.90. The increase in the registry business was \$37,343. These facts are substantial proof of the increasing population and business of the city.

Notwithstanding a reduction of 2 cents per pound in the tax on tobacco, and the abolition of the special tax on dealers in manufactured and leaf tobacco, and manufacturers of tobacco and cigars, the collections of United States internal revenue in this city for 1891 exceeded those of the previous year \$84,500. The total collections of internal revenue in the district for the fiscal year ending June 30, 1892, showed a handsome increase over those of the previous year, and amounted to \$3,310,401.40 against \$3,219,448.31 the previous year, and \$2,939,871.10 in 1890. The loss in revenue in the district resulting from reductions referred to was equal to about \$150,000. The following statement shows the quantities of the articles manufactured in the County of Milwaukee, subject to internal revenue tax during the calendar year 1891:

Beer, barrels.....	2,021,205	Tobacco, pounds.....	6,346,110
Spirits, gallons.....	495,401	Cigars, number.....	37,997,034

The receipts of customs duties at the Milwaukee Custom House for the fiscal years ending June 30, 1891 and 1892, do not make a favorable comparison, but there are good reasons for it. Receipts for the former year were \$392,331.17, and for the latter \$345,840.19. This deficiency of \$46,490.98 is directly chargeable to the McKinley tariff law. Had it not been for that measure the receipts for the fiscal year 1892 would have shown a handsome increase over those of 1891. But those of 1891 would not have been so large by over \$50,000, as is proven by the receipts of the month preceding the going into force of that bill. During that month the tin manufacturers received nearly their entire supply of importations of tin plate for a full year, thus saving to themselves the advance in duty which it imposed. The same is true of most of the extensive cigar manufacturers, who hurried in a year's supply of Sumatra leaf before the advance in the tariff went into effect. Aside from these lines all other sources of government revenue through the Custom House show a decided increase.

THE BREWING INDUSTRY.

Of the beer industry in Milwaukee, Secretary Langson, of the Chamber of Commerce, in his annual report of May, 1892, says:

"The most extensive single industry of Milwaukee is the manufacture of beer, and the magnificent buildings devoted to its production are the most conspicuous among the numerous manufacturing plants of the city. The tall chimneys of the big

breweries are marvels of architectural skill, and like the mammoth structures over which they tower, combine in an admirable degree the qualities of utility and beauty. It was fortunate for Milwaukee that this great industry is in the hands of men of good taste as well as great enterprise.

"The amount of beer manufactured by Milwaukee brewers in 1891 reached the enormous total of 2,012,573 barrels, and their actual sales 1,993,941 barrels, representing an approximate money value of \$12,200,000. In the manufacture of this product 2,400 men were employed, and the sum of \$1,500,000 disbursed as wages. The materials purchased by the brewers included 3,112,487 bushels of barley and 2,114,443 pounds of hops. The product and sales of each of the Milwaukee breweries for the calendar year 1891, and the total annual product and sales for the past seven years, are shown by the following statement:

BREWING ESTABLISHMENTS.	Brewed, Barrels.	Sales, Barrels.
Pabst Brewing Company.....	804,548	790,290
Jos. Schlitz Brewing Company.....	562,681	547,196
Val. Blatz Brewing Company.....	230,062	249,766
Falk, Jung & Borchert Brewing Company.....	175,848	171,500
Fred Miller Brewing Company.....	123,789	126,278
Jacob Obermann Brewing Company.....	47,760	44,000
A. Gettelman Brewing Company.....	38,900	33,041
Cream City Brewing Company....	33,985	31,870
 Totals, 1891.....	 2,012,573	 1,993,941
" 1890.....	1,928,082	1,800,758
" 1889.....	1,580,461	1,501,638
" 1888.....	1,348,447	1,318,583
" 1887.....	1,283,432	1,275,641
" 1886.....	1,203,879	1,186,882
" 1885.....	1,117,256	1,084,819

The Pabst Brewing Company has a world-wide reputation. A capital of \$12,000,000 is invested in the manufacturing plant. The annual product exceeds \$6,000,000 in value, using \$2,500,000 worth of raw material. The annual production in 1885 amounted to but \$2,500,000. The company's officers are: Fred Pabst, president; Mrs. L. Schandein, vice-president; G. G. Pabst, secretary.

One of the great beer breweries of Milwaukee is the Joseph Schlitz Brewing Company. It was established by Joseph Schlitz in 1849, and incorporated as a stock company in 1874. The plant is now valued at \$10,000,000. A new \$300,000 brew-house, just completed, will increase the capacity of the establishment to 1,000,000 barrels per annum. The present officers are: Henry Uihlein, president; August Uihlein, secretary; and Alfred Uihlein, superintendent.

The celebrated beers known as "Tivoli," "Wiener," "Pilsener," Pale "Lager" and "Muenchener," are produced by the Val. Blatz Brewing Company. A large new refrigerator building has just been added to the plant of this establishment, which is constantly increasing the number of its buildings.

The Falk, Jung & Borchert Brewing Company, operating an extensive plant just west of the city limits, has been peculiarly unfortunate. In July, 1890, a large portion of its plant was burned. It was promptly rebuilt and fitted with the most modern appliances. In August, 1892, fire took possession of the works again, causing destruction amounting to \$200,000. But the same energy which established the business and rebuilt the plant two years previous is again at work, and in the least possible time it will be rebuilt and in operation again. Its production last year was 171,500 barrels.

The Fred. Miller Brewing Company, established in 1848, has a substantial plant and does what anywhere, except beside the greatest breweries in the world, would be regarded an enormous business. The plant is worth about \$200,000, and the company is fast progressing in the scale of large production and prominence in the business world. In 1891 it produced 126,000 barrels of beer.

Jacob Obermann established the J. Obermann Brewing Company in 1852, and since that date the establishment has steadily grown in size and importance. It has now a plant valued at \$500,000, and each year its products show a decided increase in value. The officers are : President, Fred. J. Obermann ; vice-president, George J. Obermann ; secretary, Phil. Obermann ; assistant secretary, Gus. Obermann ; superintendent, Herman Obermann.

The A. Gettelman Brewing Company caters largely to home trade, of which it receives its full share. Its product in 1891 was 31,870 barrels. Though the great breweries of the city now overshadow the smaller ones, they can all look back to modest beginnings, when they were not greater than the present small ones ; yet a cordial feeling of reciprocity exists among them.

The Cream City Brewing Company is of more recent origin, though the original concern out of which it sprung dates back to 1853, the reorganization and present name coming into existence in 1879. It has a good home trade, and in 1891 brewed 33,041 barrels of beer.

METAL WORKING ESTABLISHMENTS.

No corner of the iron producing or consuming world is so remote as not to be familiar with the Illinois Steel Company's great plant in Bay View, one of the most important of Milwaukee's industries. Its vast supplies come direct by lake from the great coal docks of the East and the iron ore mines of the North, to be manufactured here into bar and band iron, round, flat and square ; bar and band steel, round, flat and square ; angles, channels, saw-mill track, plow billets, cultivator bars, tee-rails, shafting iron and steel, iron and steel splices, and foundry and mill pig iron. The Company's office in Milwaukee is at 151 New Insurance building ; in Chicago in "The Rookery."

There are few users of mining and other heavy machinery in the civilized world who are not familiar with the Reliance Iron Works of the Edward P. Allis Company of Milwaukee. Though but a small industry when founded by the late Edward P. Allis, it has grown to be one of the largest institutions of the kind in the world, and has a world-wide reputation. It stands in the front rank as a producer of engines of all kinds, including those used in the great mines of the world, in blast furnaces, pumping stations, etc. Its business has grown from \$30,000 a year at the beginning, to more than \$3,000,000 a year now.

There are few more important machinery producing concerns in this country than the Hoffmann & Billings Manufacturing Company, extensive manufacturers of improved Corliss engines, condensing, non-condensing, compound and triple-expansion

sion engines, all kinds of improved boiler feed-pumps, and supplies for brewers and steam and gas fitters. The business, established in 1855 in a small way, has grown until the plant alone represents a value of over \$350,000, and the annual product exceeds \$1,000,000 in value, reaching all important markets from New York to San Francisco. The officers are: John C. Hoffmann, president; B. Hoffmann, vice-president; J. B. Kalvelage, secretary and treasurer.

The tin factory of Kieckhefer Bros. & Co. is the leading institution of its kind in the United States. It produces all kinds of plain tin, retinned, japanned, stamped and galvanized tinware. Its 100 tin-stamping presses, varying from 300 to 70,000 pounds in weight and turning out every variety of pressed tinware in use, are run by a 200 horse-power Corliss engine. The value of the plant exceeds \$200,000, and the annual product runs close to \$1,000,000 in value. Ferdinand and William Kieckhefer and Sebastian Walter are the proprietors. They have an extensive branch house in Chicago, and the product of their works reaches the markets of the world.

One of the prominent malleable iron works of the United States, and one which has given Milwaukee much prominence as a producer of that class of material, is the Wisconsin Malleable Iron Company, organized in 1879, and which has kept pace with the demand for this class of goods until its capacity has been increased fully tenfold, and there are but few works of the kind in the United States that rank with it. The Northwestern Malleable Iron Company is an establishment of the same class, although of more recent origin. It is doing a large business, and is fairly launched on the highway of prosperity.

One of the most substantial and long established jobbing concerns in iron, steel, carriage and wagon hardware, wood-work and trimmings in the Northwest is the Shadbolt & Boyd Iron Company. It was founded when Milwaukee was but a small town and has grown and progressed with the city itself, enjoying an extensive business and an enviable reputation in the business world. The officers of the company are: Francis Boyd, president; F. R. Ellis, vice-president; and Henry B. Hunter, secretary and treasurer.

One of the important young institutions of Milwaukee is the Fuller-Warren Stove Works, a Western branch of the great concern by the same name in Troy, N. Y. It has an extensive plant of the most modern class, and is producing all kinds of stoves, ranges and heating apparatus. This is its first full year in business here and its product will run close to, and may exceed \$1,000,000 in value. Walter P. Warren is president; H. A. Viets, vice-president; C. W. Jones, secretary; and J. E. Potter, treasurer. A large amount of local capital is interested in the business.

The Geuder & Paeschke Manufacturing Company produces all kinds of pieced, stamped and japanned tinware, and black and galvanized sheet-iron goods. The factory of the Company is a five-story brick building full of the latest improved machinery for the rapid production of tin and sheet-iron ware of all kinds. The Company has an enviable reputation for energy and fair dealing, and its future is bright.

The Moore Manufacturing Company is one of the rapidly growing and important industries of Milwaukee. It is young, having been established in 1888, but already yields an annual product of nearly \$250,000. It produces a vast variety of light castings, including hot-air registers, locks, door hangers, pulley blocks, etc. It has an investment of \$100,000 in its plant, and is officered with F. G. Moore as president; M. H. Brand, vice-president; M. A. Boardman, treasurer; and V. M. Moore, secretary.

The Weisel & Vilter Manufacturing Company, with \$150,000 invested in its plant, is turning out an annual product

worth \$500,000. It manufactures Corliss engines, refrigerating and ice-making machinery of all kinds, and brewers' and bottlers' machinery. Its field of sales covers the United States, Europe, Mexico and South America. Theo. O. Vilter is president of the company, Albert Wallber vice-president, and William O. Vilter secretary and treasurer.

The steam navigators of the fresh and salt waters of the world are familiar with the celebrated propeller wheels produced by the Sheriffs Manufacturing Company, but doubtless few of them are aware that the justly popular wheels are manufactured in Milwaukee. The company furnishes a majority of the wheels for all first-class propellers on the great lakes. It also produces steam and oil pumps, engine supplies, iron and brass castings, and portable and stationary engines of various kinds.

Among the iron working establishments of the West the Milwaukee Boiler Works occupy a prominent position in the production of stationary and marine boilers. The latter are made a special feature of the works, and the marked success in making quick and safe trips on the great lakes by many of the leading steamers is largely attributed to the excellence of the boilers obtained at this establishment.

Among the manufacturers of intricate and perfect machinery there are few firms in this country that enjoy so enviable a reputation as do Messrs. Pauling & Harnischfeger. They make a specialty of fine and technical machinery, and also make a general line of machines of various kinds, operating an extensive foundry in connection with their machine-shops.

OTHER LEADING CONCERNs.

The extensive works of the Rundle & Spence Manufacturing Company, with a \$350,000 plant, including a complete brass foundry and producing all kinds of gas and steam fitters' supplies, is one of the leading institutions in the Northwest. Its annual product of \$200,000 in value five years ago, has increased to over \$600,000 a year now, and includes almost everything in brass, iron, copper and malleable goods used by steam fitters. The growth of business necessitated the opening of a branch house in Chicago at the beginning of 1892. A specially fine line of sanitary goods is one feature of its recently added productions.

In 1847, when Milwaukee was but a mere village, Henry and Elias Friend established the Friend Bros. Clothing Company, which has since been incorporated as a stock company, and is turning out over \$700,000 worth of manufactured clothing annually. In the commodious building owned and occupied by them, \$350,000 worth of these goods are manufactured each year. The entire Northwest is covered by the representatives of the firm placing its product in the hands of retailers.

Among the important manufacturing concerns of the city is the F. Mayer Boot & Shoe Company. Its specialties are Wisconsin oil grain goods and ladies' and misses' fine shoes. In the leather trade the Company is regarded as one of the most progressive concerns of the kind in Milwaukee.

Among Wisconsin's most extensive wood-working establishments is the Conway Cabinet Company of Milwaukee. It does an extensive business in the manufacture of wood mantels and its jobbing trade in these goods, as well as in grates, tiles and brass goods, is extensive. It also does a large retail business at 421 Broadway.

One of the greatest tobacco manufactories of this country is that operated by the F. F. Adams Tobacco Company, established in Milwaukee in 1847. The ground area covered by the works is over 19,000 square feet, and floor space rounds up over

76,000 square feet, giving large space for sorting, cutting, storing and packing rooms. The Company handles 10,000 pounds a day, and over 3,000,000 pounds annually, getting its supply direct from Kentucky and selling the manufactured product by shipment to nearly every considerable city in the United States. The product includes numerous leading brands of smoking and several choice brands of fine-cut. The establishment is a fitting monument to the energy and integrity of the man whose name it bears and who is daily active in the management of the business.

Among the leading carpet establishments of the Northwest is the house of Stark Bros. Company, known throughout Wisconsin and the adjoining States as a safe and reliable place at which to secure anything wanted in the line of carpets, draperies, lace curtains, mattings, rugs, Venetian blinds, Moorish fret-work, etc. It is a house of which thousands of tasty housekeepers all over the Northwest are proud, as they view the furnishings of their own homes.

No dry goods concern of the country is more complete in all departments than the great house of T. A. Chapman Co. Though that sturdy New Englander, Timothy A. Chapman, who founded it many years ago, has passed on to that reward which follows a life of uprightness and usefulness, the business still goes forward, a monument to his name and a pride to all Milwaukee, as well as thousands not so fortunate as to call this beautiful city their home.

The extensive wholesale grocery trade of Milwaukee, aggregating more than \$12,000,000 a year, is fittingly represented by the house of Mendel, Smith & Co., which has few equals in its line in the Northwest. Its specialties are all leading lines of groceries, all foreign articles being imported direct by the firm. The name of Mendel, Smith & Co. has been, for years, a synonym for stability and reliability everywhere throughout the Northwest. This firm has done not a little to add to Milwaukee's enviable reputation as a business center.

One of the leading industries of Milwaukee is the packing of pork, the chief portion of which is done by Cudahy Bros., Patrick Cudahy being the resident head and manager of the business. One year hence the firm will be doing business in its new plant at Cudahy station, two miles south of the city limits. The new plant will be one of the most complete in the country; the buildings alone, now in process of construction, costing over \$1,000,000. The stock-yards will be complete in every respect, and the works will have a capacity for handling 6,000 hogs and 1,500 beef cattle daily. The new town of Cudahy bids fair to have a population of 3,000 to 5,000 within a year. The establishing of a new packing-house plant and new town by Mr. Cudahy is one of the most gigantic enterprises yet undertaken in the West.

The firm of Goldsmith & Co., of which Bernard Goldsmith is the head, is one of the leading houses in the Northwest, dealing in carpets, draperies and everything which goes to make up a complete establishment of that kind. The business will soon be extended to even greater proportions when it is removed to the new six-story building just erected on the corner of Wisconsin and Jefferson streets, opposite the site of the new government building, at a cost of several hundred thousand dollars. By many years of persistent toil Mr. Goldsmith has justly earned the position he occupies as a leader in his line of business.

The Steinman Lumber Company, H. J. Steinman, president and treasurer, and Albert C. Fischer, secretary, is one of Milwaukee's most extensive lumber dealing concerns. Lumber of all kinds is handled in large quantities, being obtained direct from the producing regions of Northern Wisconsin. The firm has an extensive trade outside of the city, as well as with the leading city contractors and builders.

Of the many wholesale drug concerns of the country, there are few so extensive or so completely occupying a large region of country in their trade, as does that of the Chas. Baumbach Co. It is an establishment of vast proportions, and the stock of all articles in the line of drugs, paints, oils and glass is one of the largest to be found anywhere. It is one of the oldest and best known houses of the kind in the West, and its patronage is very large.

The Gem Hammock and Fly Net Company is one of Milwaukee's comparatively young industries, but it has already won a prominent place in the production of hammocks and horse fly-nets of an almost endless variety. Like many other manufacturing concerns that have been established in Milwaukee, it has found the field a profitable one, and the demand for its products has necessitated frequent enlargements in its productive capacity.

There are many soap factories in Milwaukee and other points in the West, but to Rickers & Company belongs the honor of being called the largest and most extensive. The Company is composed of John S. and J. Herbert Ricker. Their specialties are fine cocoanut oil and laundry soaps, which they produce in large quantities, and cover the markets of a vast region of country with their products, which are popular everywhere.

Among the many manufacturers of boots and shoes in Milwaukee none enjoy a more enviable reputation than do the Beals & Torrey Co. They make extensively of all general lines of footwear, and are constantly moving toward the front rank of manufacturers of those goods.

Of all the straw works in this country there is no other concern so extensive as the Northwestern Straw Works of Milwaukee. The product embraces all kinds of ladies' and gentlemen's hats, and the quantity produced supplies a large portion of the trade of the country. The works are so extensive and so well managed that they are able to not only compete successfully with all others in their line, but to actually lead all in the markets of the world.

The E. Sanderson Milling Company, William Sanderson, president; Howard Sanderson, vice-president; and Harry B. Sanderson, secretary and treasurer, is one of the largest and leading concerns of the kind in the West. Its capacity is 2,000 barrels of flour every twenty-four hours, and it is run in full force constantly.

The Eagle Mills, owned and operated by J. B. A. Kern & Sons, is always pressed to its full capacity of 2,000 barrels a day. Its specialties are choice spring wheat flour from hard Dakota and Minnesota grain. The firm also makes a special feature of choice rye flour.

The Daisy Roller Mills runs largely on spring wheat flour, of which it produces 1,500 barrels daily. Its favorite brands are "Tip-Top," "Butterfly," "Jewel," "Best," and "Vienna." Edwin Reynolds is president of the Company; W. D. Gray, vice-president; L. R. Hurd, secretary and manager; W. W. Allis, treasurer.

One of the great developers of nature's resources into commercial shape is the Milwaukee Cement Company, which, from an abundant supply of cement rock existing just north of the city limits, is manufacturing upwards of 500,000 barrels of choice cement annually, with which many of the leading markets of the world are supplied. The Company has come safely through an extensive controversy with combinations of cement manufacturers of other parts of the country and holds its ground completely, owing largely to the superior quality of its product and its straightforward manner of doing business. The table of Milwaukee Manufactures, published on a preceding page, gives some idea of the importance of this concern.

The Wisconsin Trust Company, of Milwaukee, does a general trust business, and has a fully paid-up capital of \$100,000. It acts as trustee, assignee, receiver, executor, administrator and guardian of estates, minors and trust funds. It is incorporated under the laws of the State, and numbers among its stockholders many of the most substantial capitalists and business men of the city. It loans money on real estate security, buys and sells securities suitable for trust funds, and invests the money of corporations and others in accordance with directions given. Its officers are: Frederick N. Finney, president; Samuel M. Green, vice-president; Andrew A. Hathaway, secretary; Edward Ferguson, treasurer; John M. W. Pratt, trust officer. It was established in 1890, and is located at 112 Mason street.

A NOTABLE FINANCIAL INSTITUTION.

The Northwestern Mutual Life Insurance Company is one of the leading institutions of its kind in the United States. It is one of the strongest financial institutions in the country, and has for years been a most potent factor in making the name of Milwaukee favorably known among financiers everywhere. The assets of the Company January 1, 1892, were \$48,826,755.45. Of this sum \$40,718,057.41 was at that time loaned on bond and mortgage on real estate securities valued at \$126,458,446.21. No loans have ever been made on collaterals or stocks of any kind. In consequence the fluctuations of values in the great commercial centers have no effect on its securities. Of all the large companies, the Northwestern is the only one without a dollar loaned on fluctuating securities. The progress of the Company, while always showing healthy growth, has for the last decade been almost phenomenal. For every working day of the year 1891 this Company paid over \$7,000 for losses by death among its membership. Notwithstanding these large figures, the death loss ratio of the Company for the year was but eighty-nine one-hundredths of 1 per cent. of the mean amount in force. The surplus over a 4 per cent. reserve is \$7,891,790.55. The whole number of policies in force January 1, 1892, was 113,528, amounting to \$275,674,753, an increase for the year of 15,003 policies and \$36,765,946 insurance.

THE PRESS.

One of the influences which has contributed much to the growing greatness of Milwaukee is the enterprise of its daily newspapers. The *Sentinel* is the only morning English paper in the city, and there seems little need of another. It is backed by abundant capital, and its enterprise in supplying the people of the city and State with the latest news every morning in the year is proverbial. It is known throughout the Northwest as one of the ever staunch Republican papers of the country. Its outfit is one of the most complete in the country, and one year hence it will occupy a new ten-story building of its own.

The *Evening Wisconsin* is the leading evening newspaper of the State, and covers the field well. Its household department is one of its strong features and serves to make it a welcome daily visitor in a majority of the leading English-speaking homes of the city. Its columns are a daily epitome of the news of the State and country. It is Republican in politics, and has the field of that faith to itself as an evening paper.

The *Daily Journal* is the leading Democratic daily of the State, and is rapidly gaining a national reputation. It recently took possession of one of the finest modern offices in the West, and is winning that patronage which abundant enterprise richly merits.

Though the youngest of the English daily papers, the *Daily News* has already attained an enviable position in the field of journalism.

The *Germania*, as a daily, is but one year old, but already occupies an important position. The *Weekly Germania* is one of the most widely circulating newspapers in the United States. It is the recognized organ of the Lutheran church in the West, and as such has an extensive field practically to itself. Its chief owner is George Brumder, whose well-known enterprise has made it the power that it is in Wisconsin and other Western States.

The *Milwaukee Herold* is the leading German daily newspaper of the West, and one of the most enterprising in the United

States. It is generally acknowledged as the best German newspaper in this country, and its circulation is second only to one other—a New York publication. Through its press dispatches and its special correspondents in Europe it gives its readers the news of the world daily.

The *Daily Seebote* is an ably conducted German Democratic paper, and the *Abend-Post*, an evening German daily, is rapidly coming to the front as an energetic champion of Republican principles.

The *Kuryer Polski*, Democratic, circulates largely among the Polish population.

The *Arbeiter Zeitung* is issued every evening, and strongly advocates socialistic principles.

Besides its numerous daily papers, Milwaukee can boast of several distinctively weekly papers, whose ability and enterprise have been important factors in the upbuilding of the city.

The *Milwaukee Telegraph* has long held high rank among Milwaukee newspapers, and is justly regarded as the ablest representative of the Grand Army of the Republic in the Northwest.

Yenowine's News is largely devoted to society affairs and is known as the most beautifully illustrated paper in the State.

Peck's Sun is known the world over as one of America's leading humorous papers. It is now edited by Geo. W. Peck, Jr., son of Gov. Geo. W. Peck.

The *Saturday Star* is an eminently successful weekly paper, making a specialty of local and general county news.

The *Domacnost*, published weekly by Ant. Novak, is the leading Bohemian paper of the Northwest.

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THOUGH only about three months have elapsed since plans were perfected for the publication of this volume, the Milwaukee Real Estate Board presents to the public a work whose excellence requires no eulogium—which has but to be seen to be admired. It has been the aim of the Board from the first in issuing "Milwaukee—One Hundred Photogravures," to portray Milwaukee as it is. The photographer's camera is an impartial reflector of the actual. Every defect as well as every perfection of beauty within its vision is clearly outlined with inexorable exactness. Knowing this to be true, we have no misgivings in having Milwaukee judged by the representations of her business blocks, residences, factories, and street scenes herein contained. The historical and descriptive matter of this volume has been written by two men exceptionally well qualified to perform this service. Their articles are fair and candid statements relative to the subjects of which they treat, and an honest setting forth of solid facts concerning the Cream City's marvelous development.

To make possible the publication of a work at once so artistic and expensive, public-spirited members of the Milwaukee Real Estate Board raised a guarantee fund sufficient to cover the cost. That their enterprise has been appreciated by other business men in the community is shown by the fact that many of the leading manufacturers, bankers and merchants have contributed largely to the expense of publishing the work, though not expecting to receive therefrom any direct benefit in the way of advertising. Not one line of individual advertising appears in this work. That this is a fact is indeed a high compliment to the enterprise and public spirit of Milwaukee's real estate dealers and other business men, who have generously contributed to the success of this undertaking. The Milwaukee Real Estate Board desires to express its sincere thanks to all public-spirited citizens who have cheerfully co-operated in this matter.

If the publication of "Milwaukee—One Hundred Photogravures" serves to arouse on the part of those who may peruse its pages, a livelier appreciation of the Cream City's numerous advantages as a commercial, industrial, and residence city, the purpose of its compilers will have been fully attained.

J. C. BARTHOLF,
Secretary.

BENJ. M. WEIL,
President.



DETROIT, LAKE MICHIGAN



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SCENE ON MILWAUKEE RIVER.





PROSPECT AVENUE, LOOKING NORTH FROM JUNEAU AVENUE.





CITY WATER TOWER—EAST SIDE.



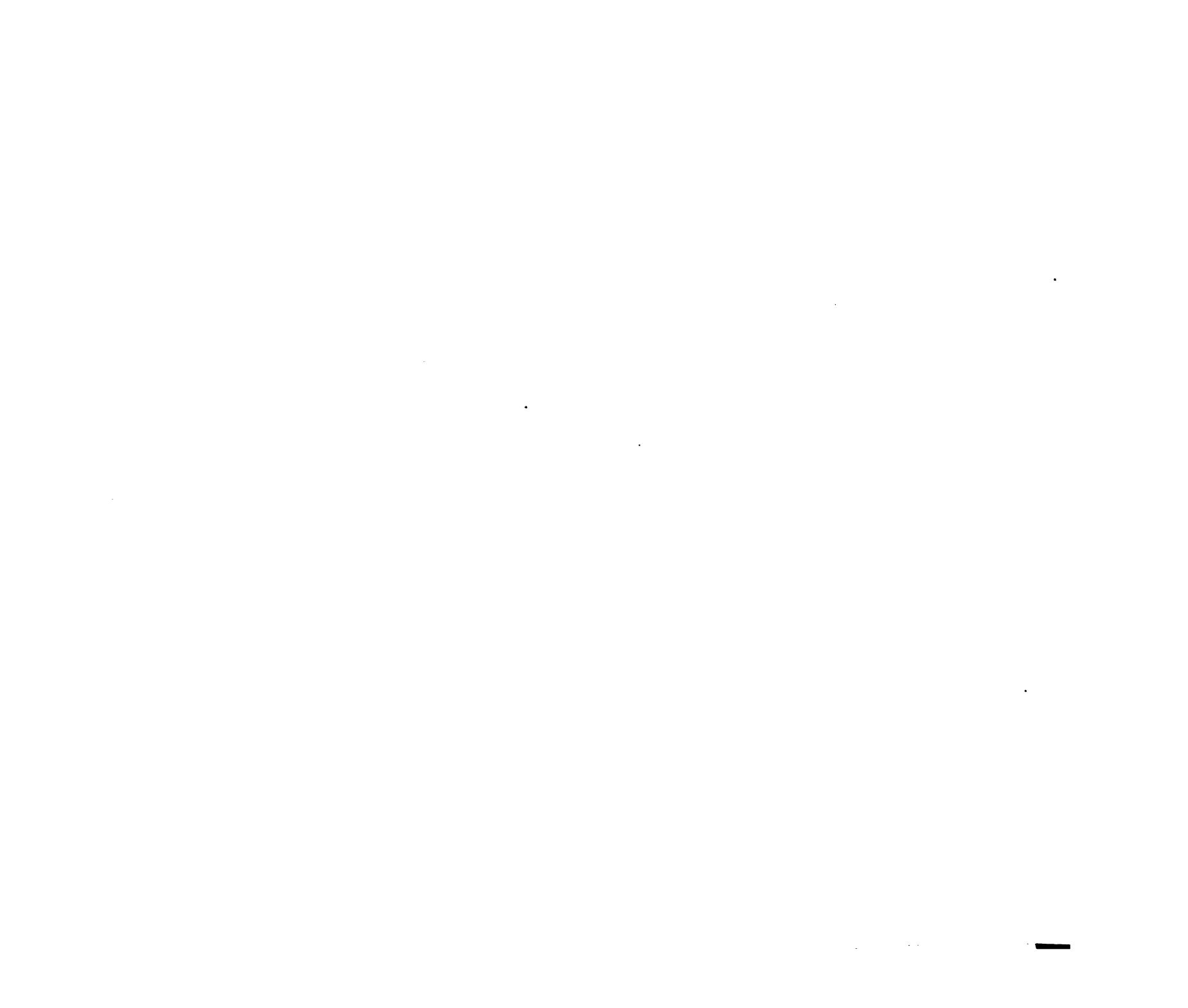


UNION MONUMENT — UNION PARK



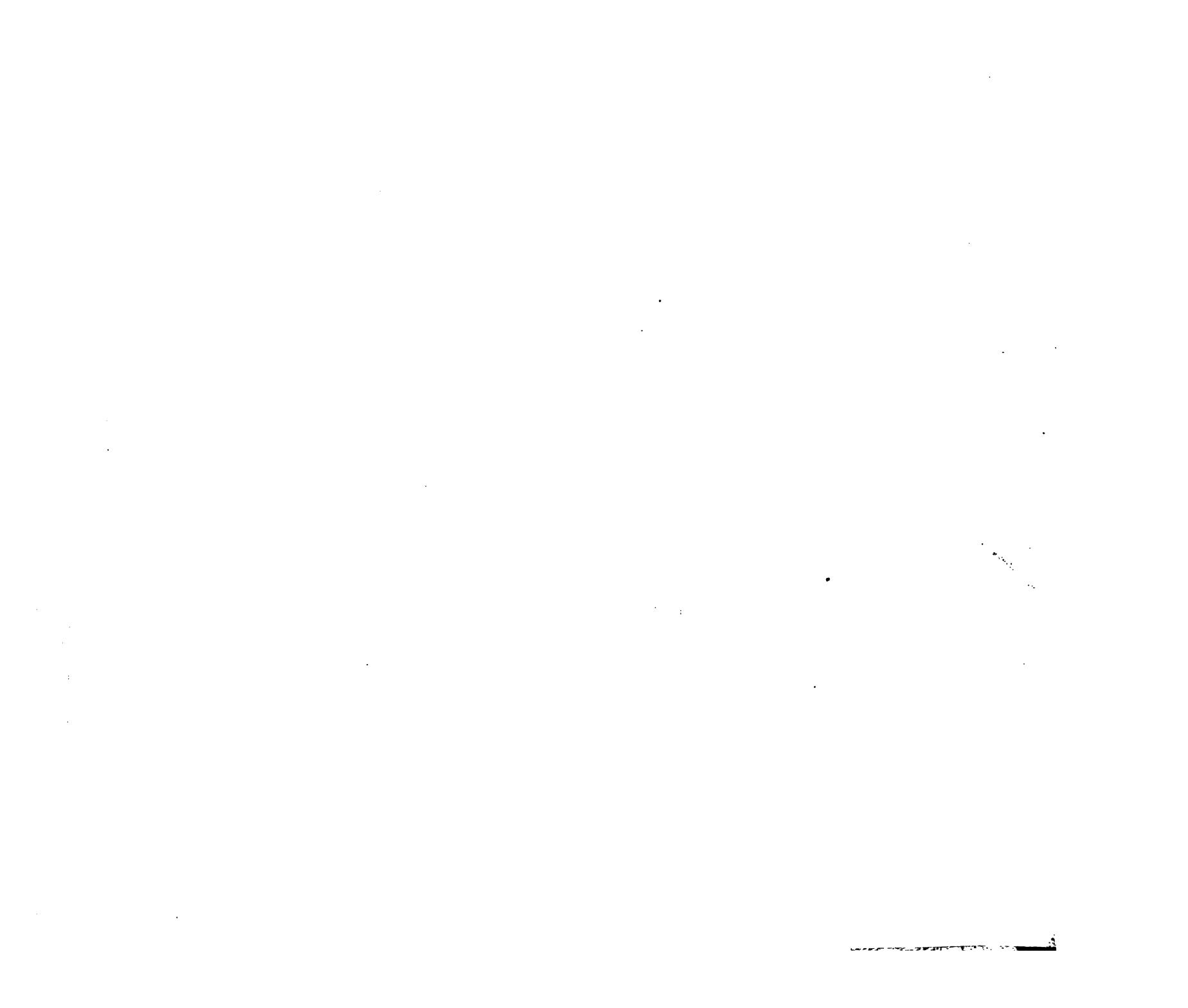


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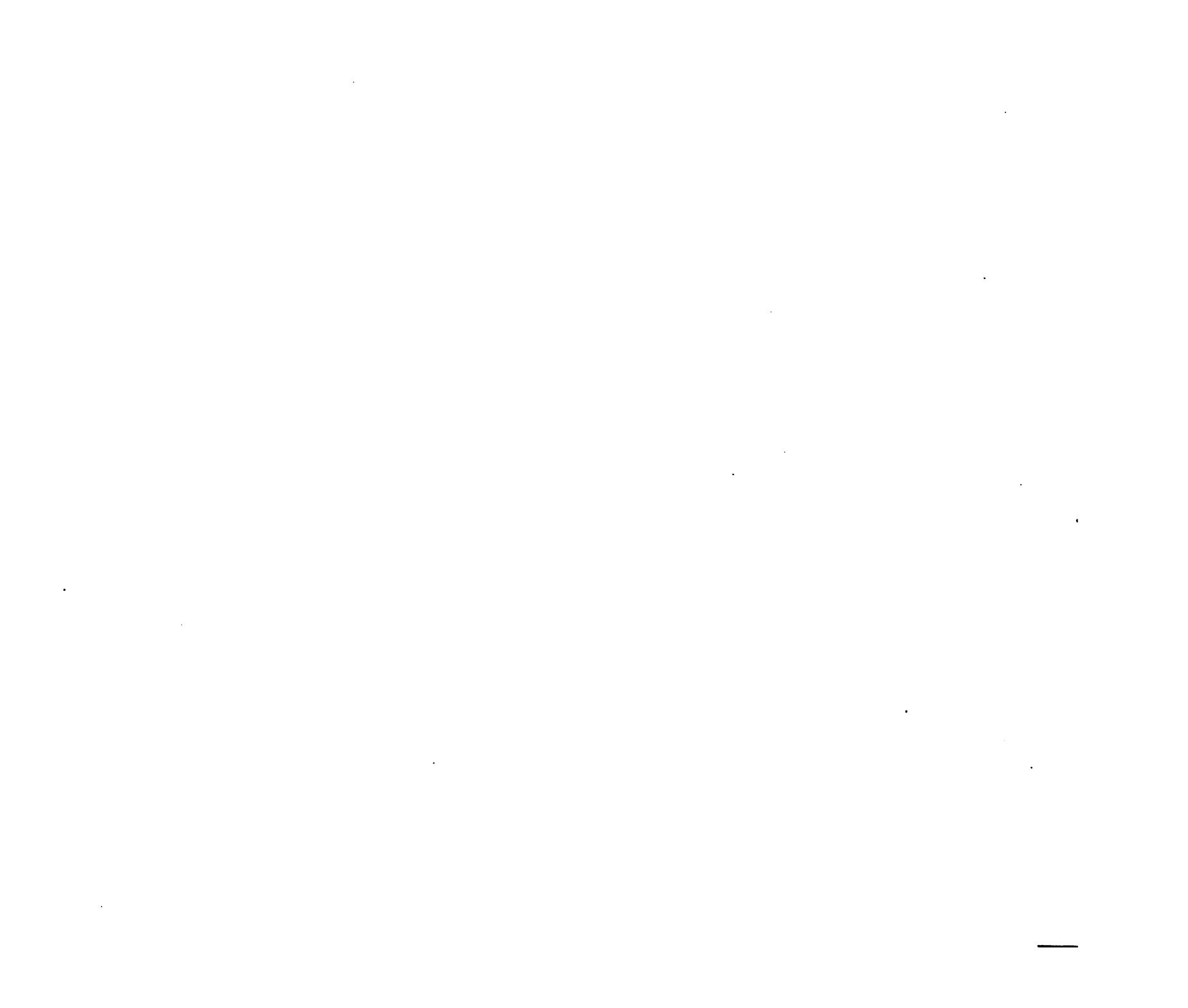
Washington Monument—Grand Avenue Park





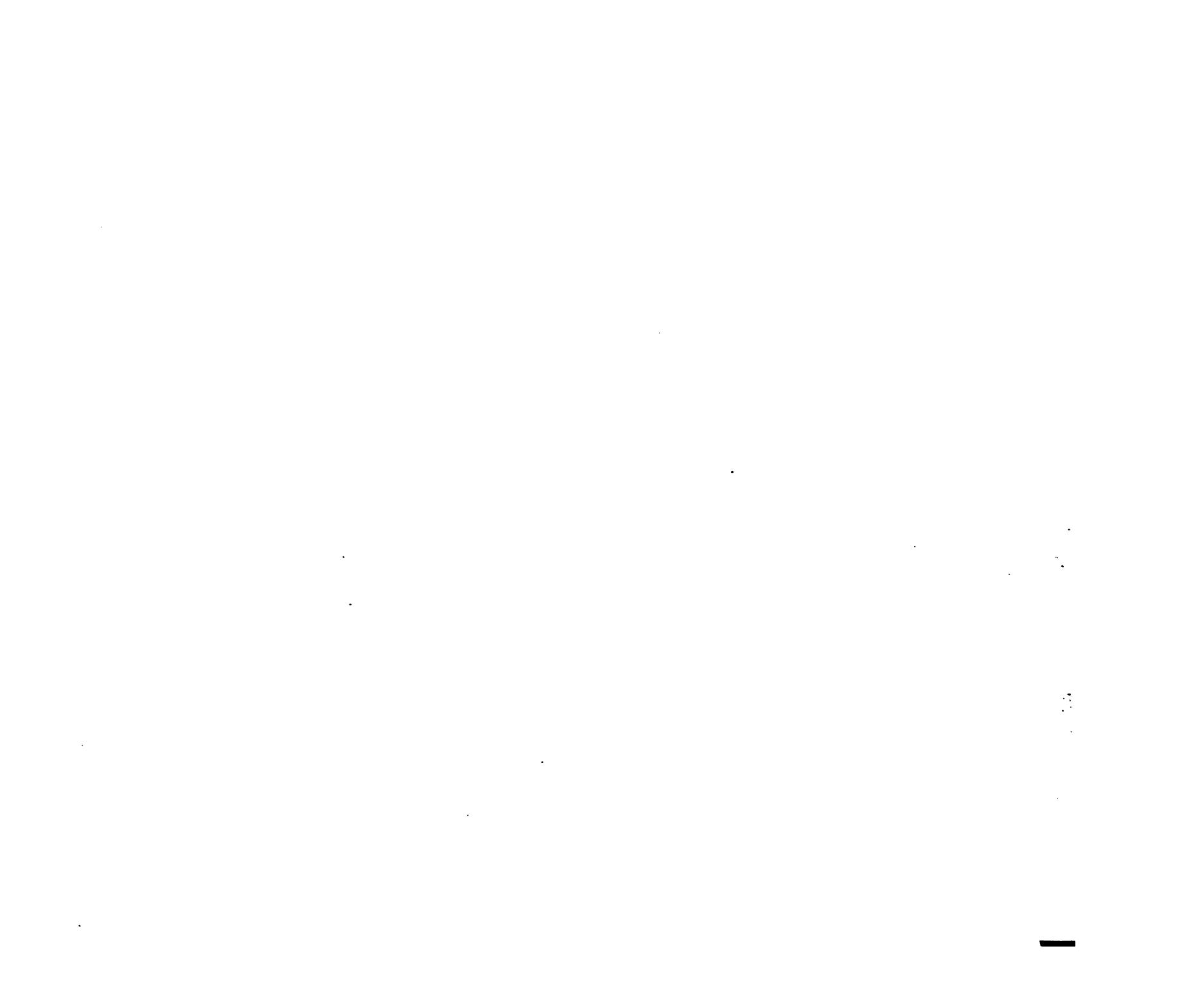
RESIDENCE OF CAPT. FRED. FAROT







RESIDENCE OF MRS. L. SCHANDEIN





RESIDENCE OF MRS. E. SCHANDEIN



RESIDENCE OF MGR. L. RICHARDSON

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1893-1894. 100-102 W. 11TH ST., NEW YORK CITY. PHOTOGRAPH BY W. H. DODD.



Residence of Mr. John C. Maitre — Grand Avenue



RESIDENCE OF DAVID FERGUSON



RESIDENCE OF HON. JOHN JOHNSTON.





RESIDENCE OF MRS. D. M. BENJAMIN.

© N.Y. O.





RESIDENCE OF FERDINAND SCHLEISINGER.





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RESIDENCE OF M. M. BENJAMIN.

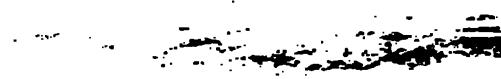


RESIDENCE OF HENRY UIMLEIN.



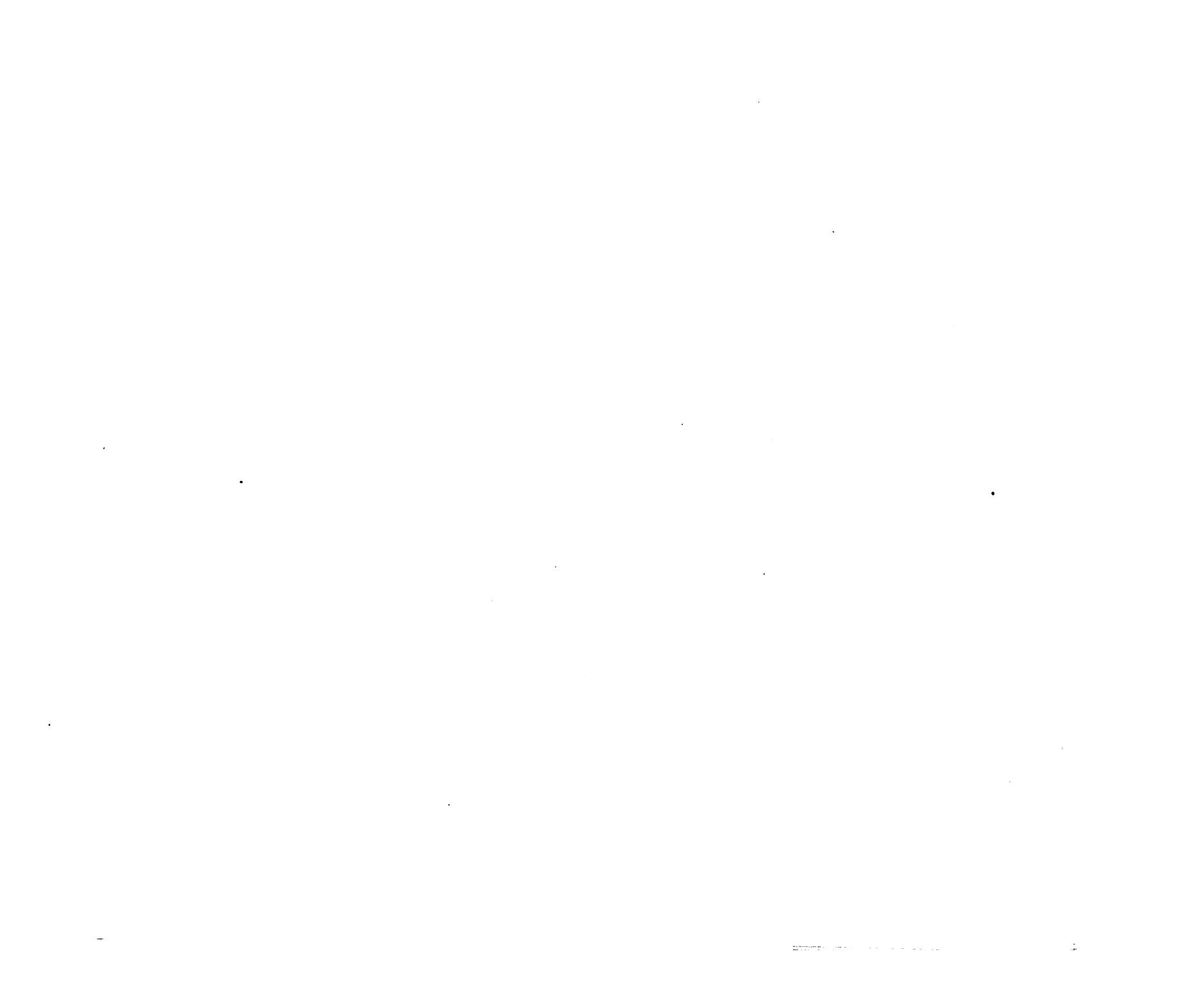
THE BELVEDERE FLATS.





1900-1901

11





ST. ANTHONY'S CATHOLIC CHURCH

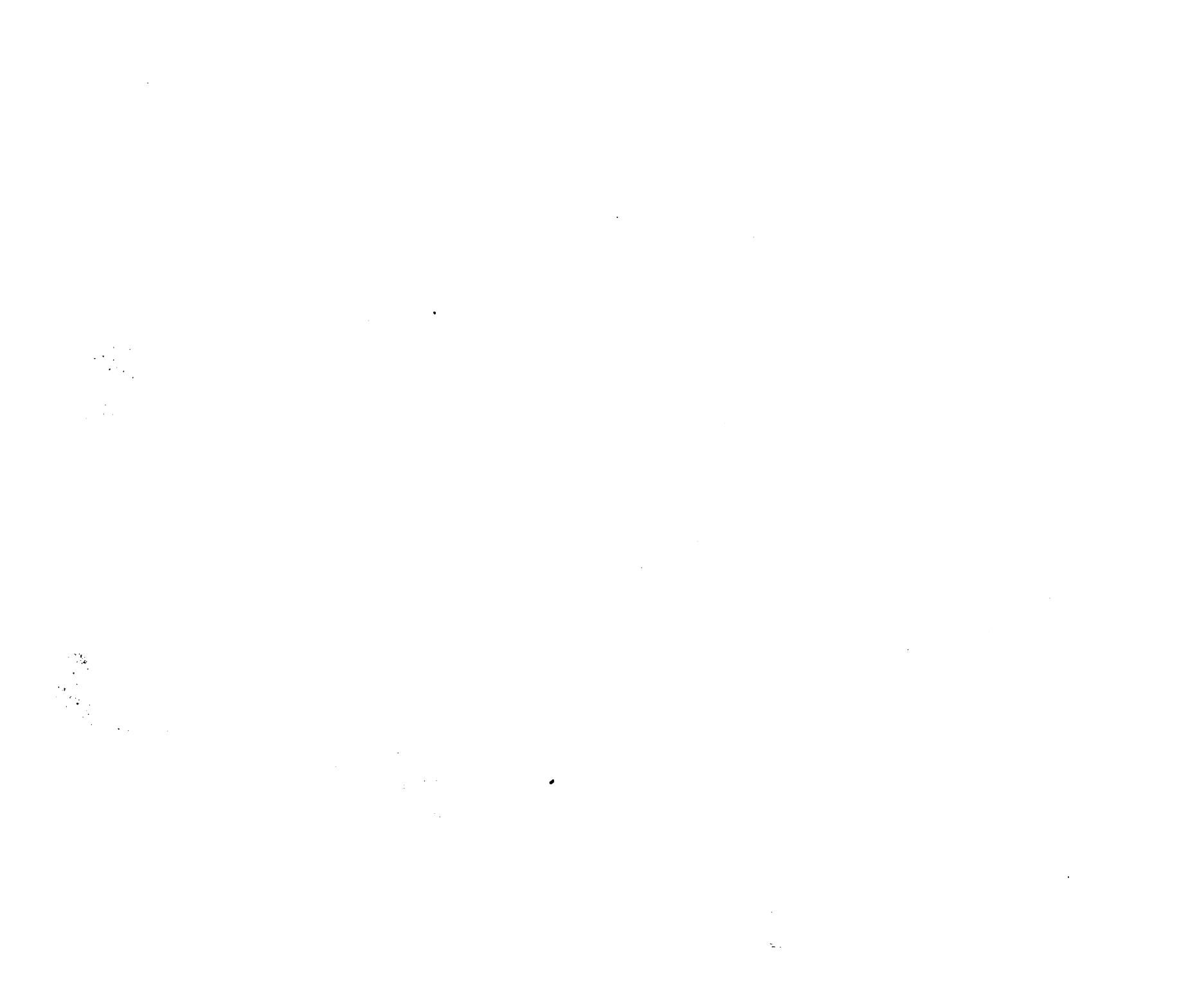
IMMANUEL PRESBYTERIAN CHURCH

TRINITY LUTHERAN CHURCH

ST. PAUL'S EPISCOPAL CHURCH

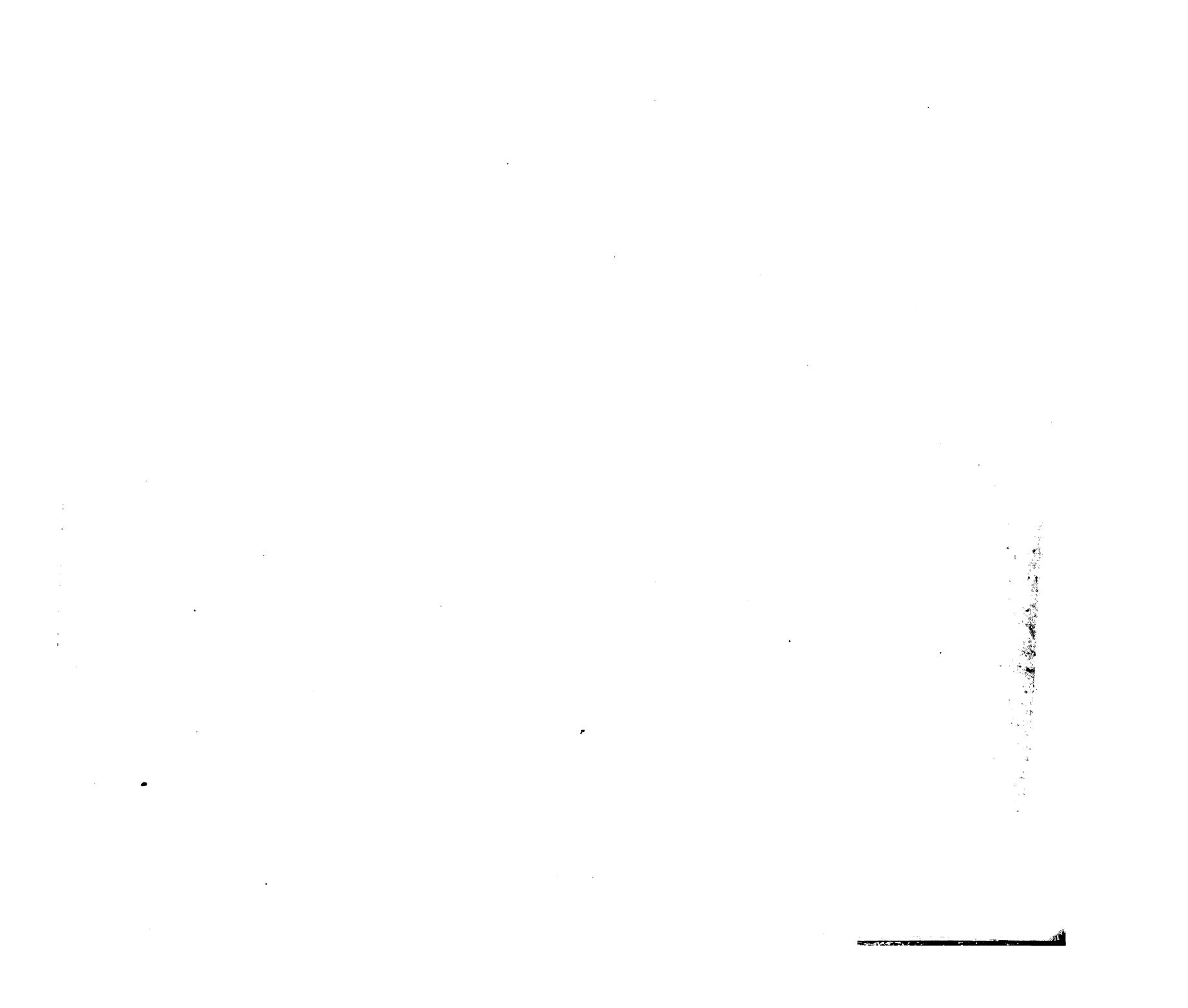
1900-1901







PFISTER MOTEL.

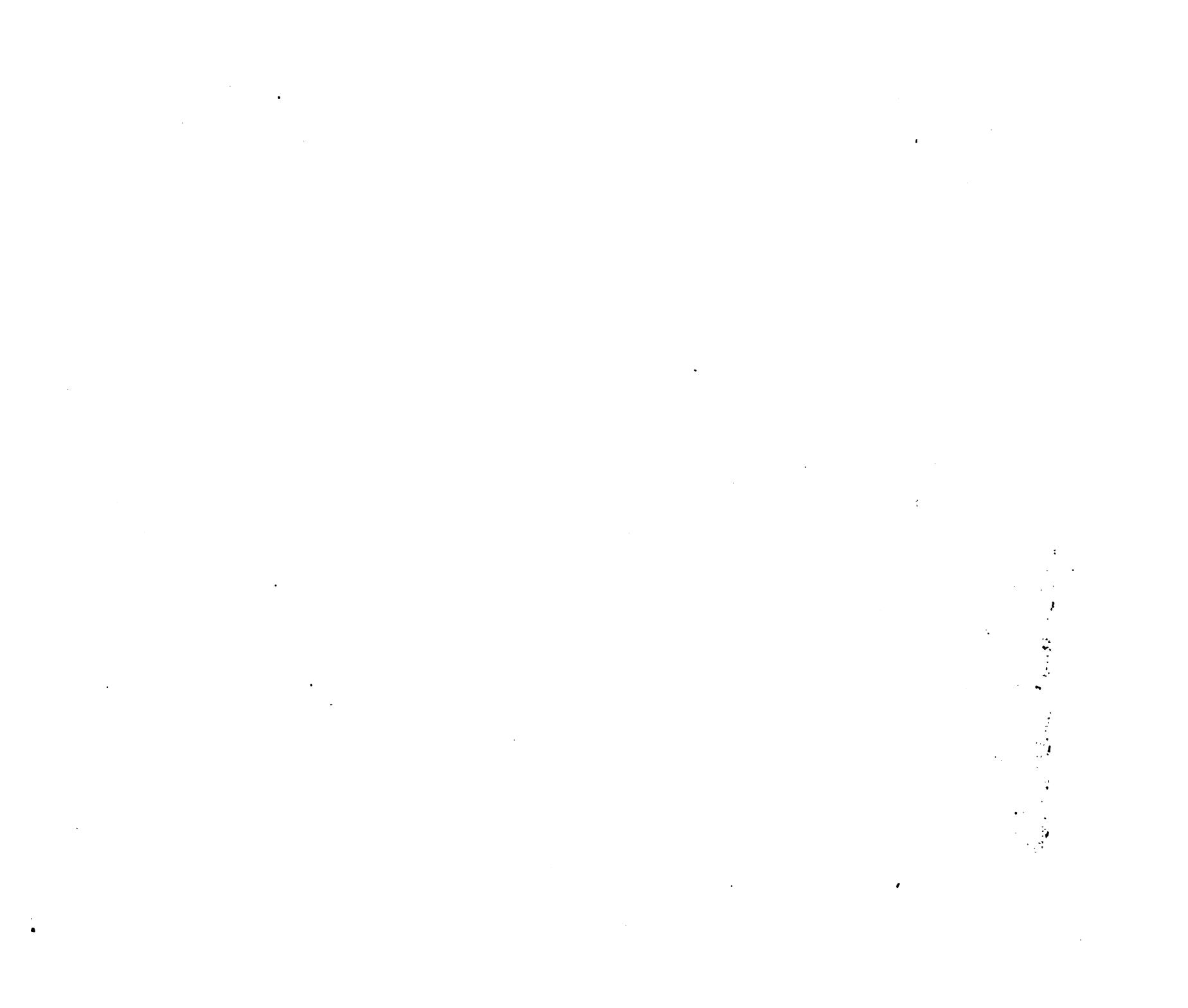




COMMERCIAL BANK.

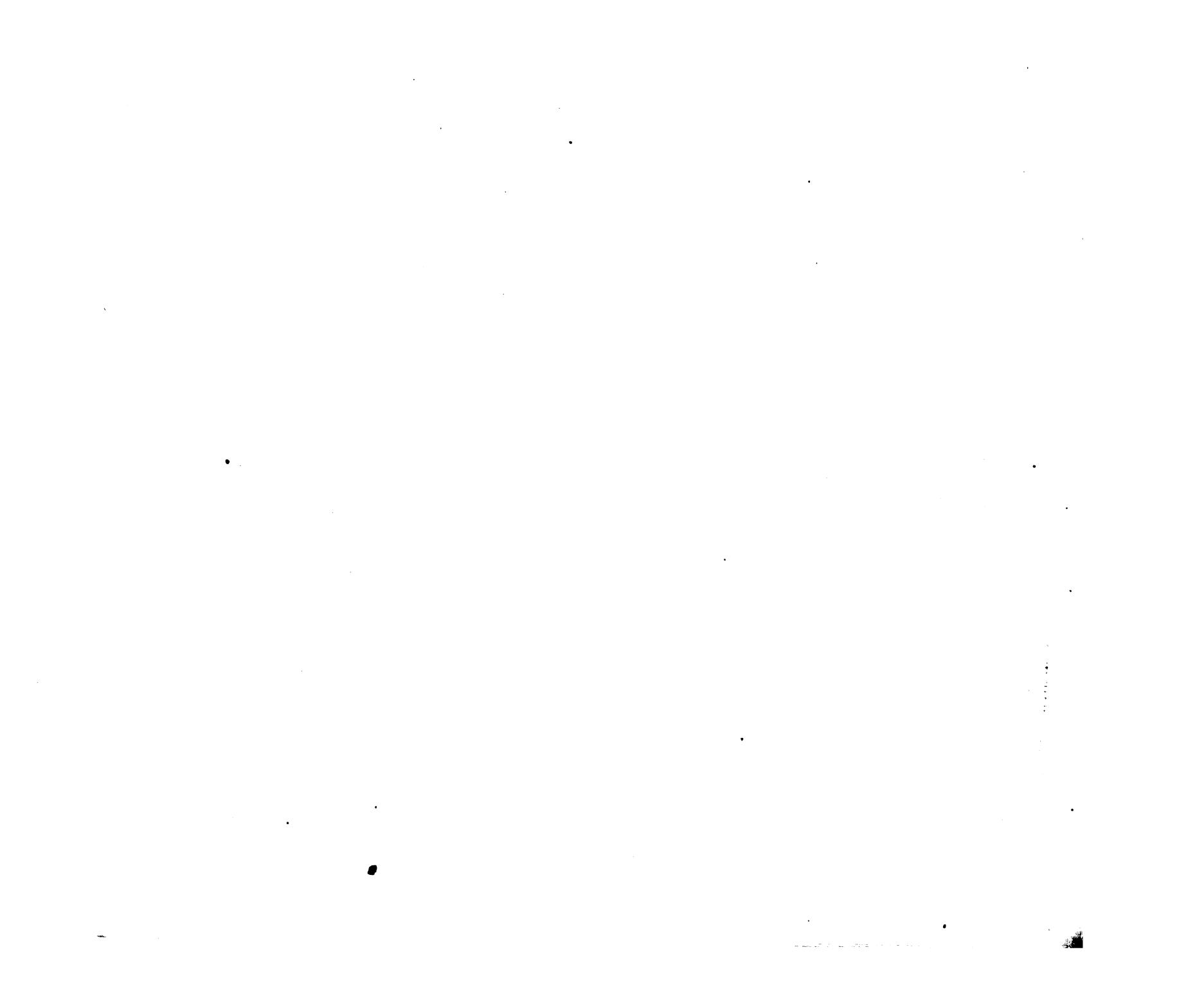
PLANKINTON BANK.

PLANKINTON HOUSE.

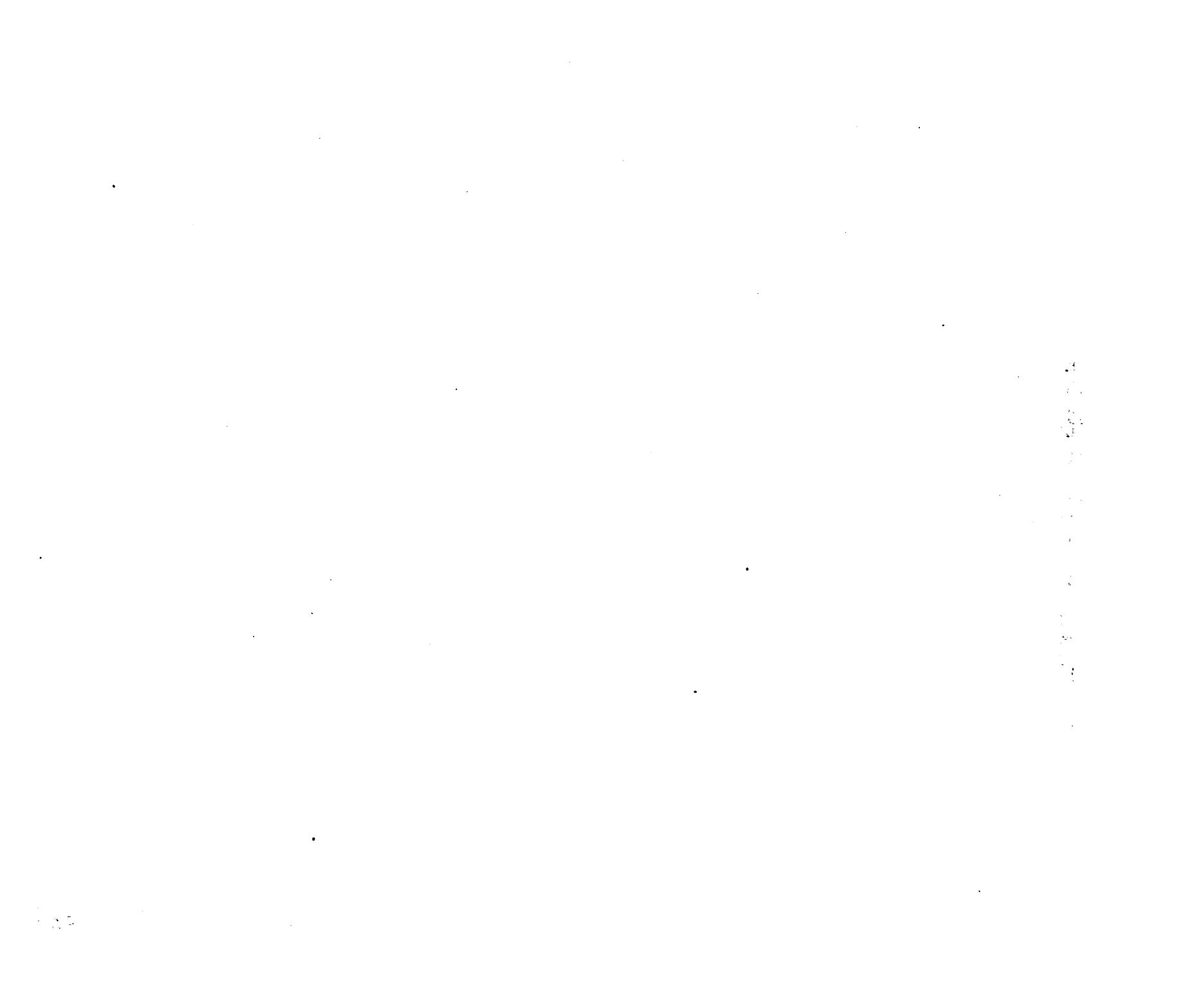




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SCHLITZ HOTEL.





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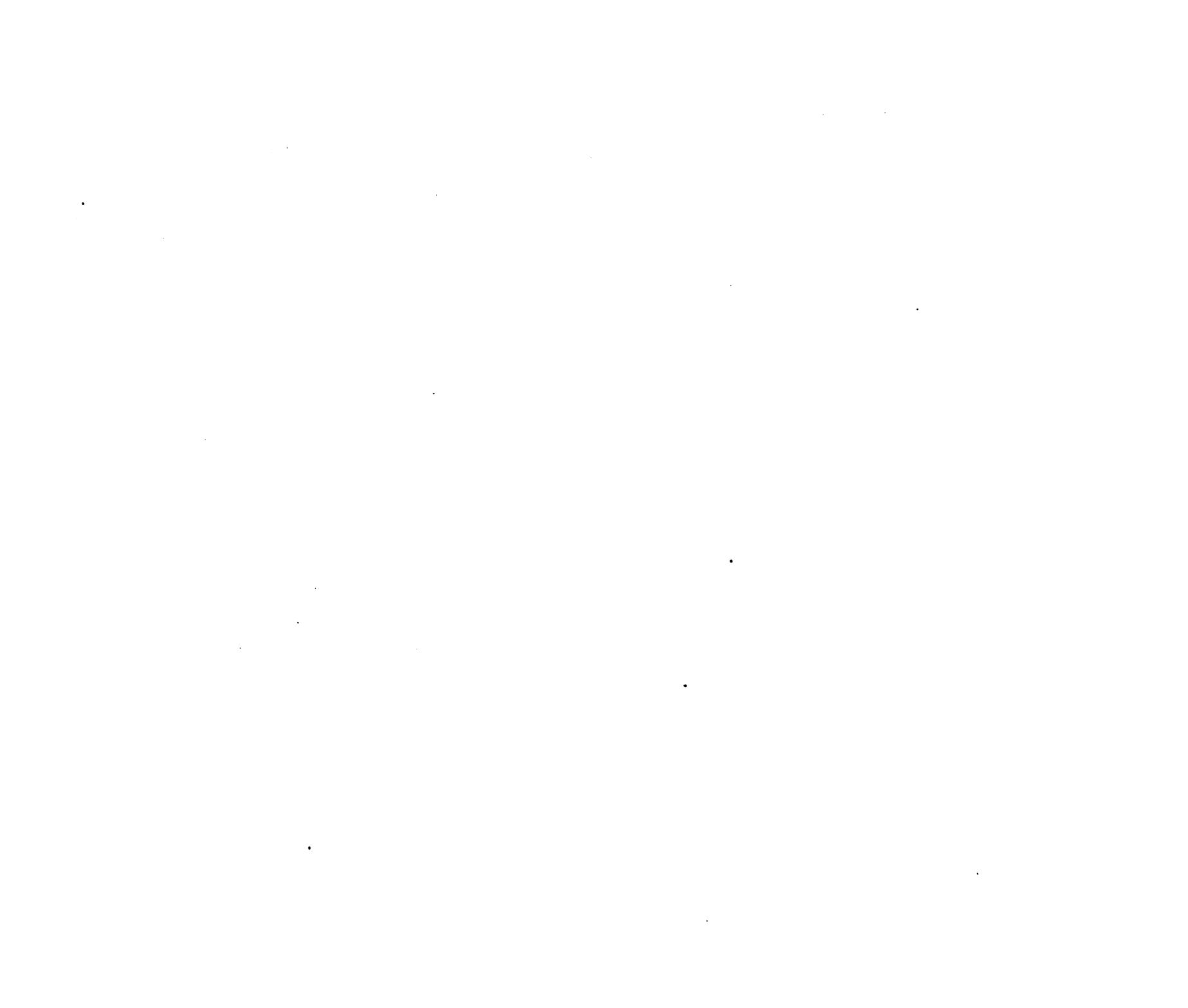
SCHLITZ MOTEL.





SCHLITZ HOTEL







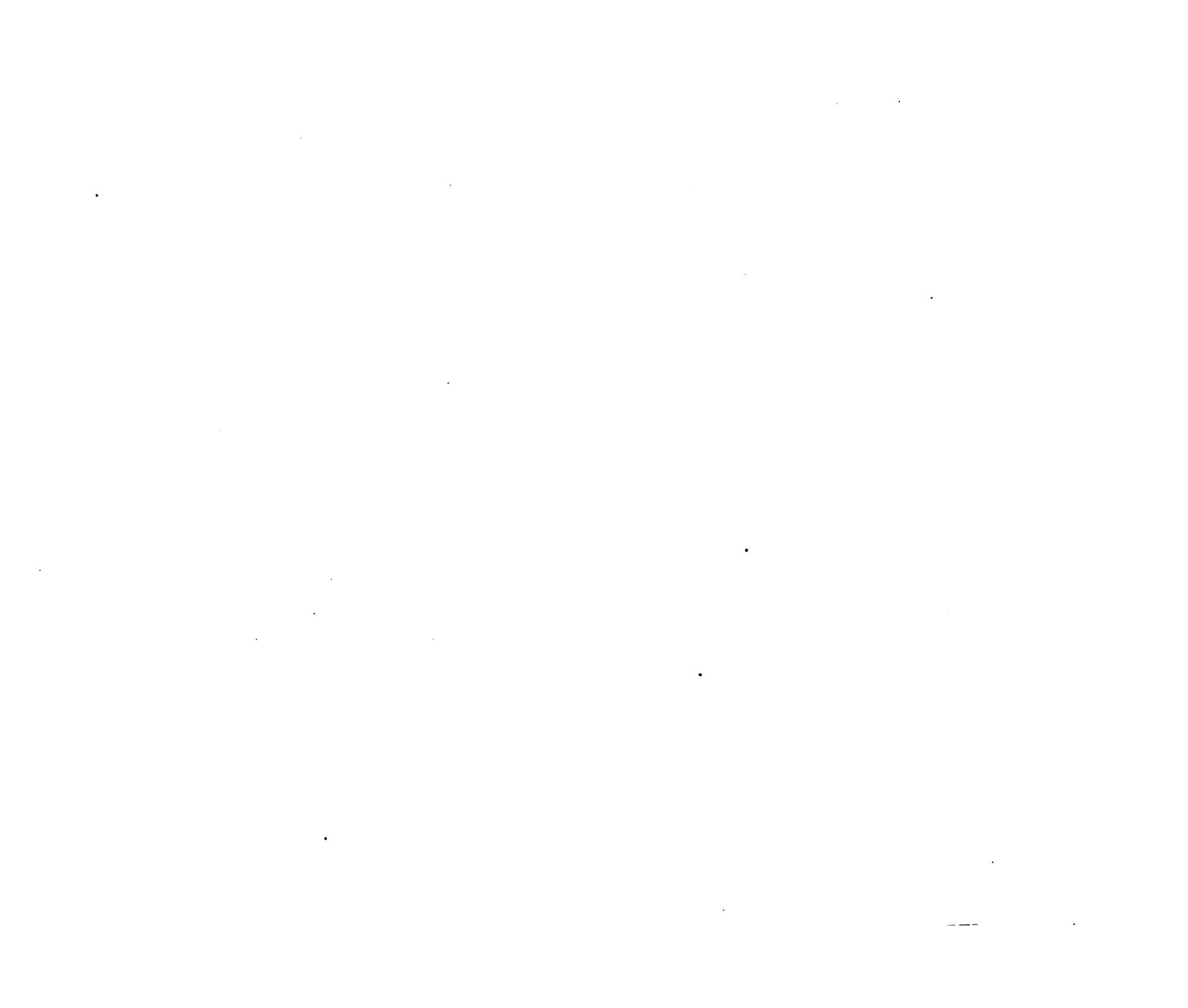
SCHLITZ MOTEL.





SCHLITZ MOTEL.

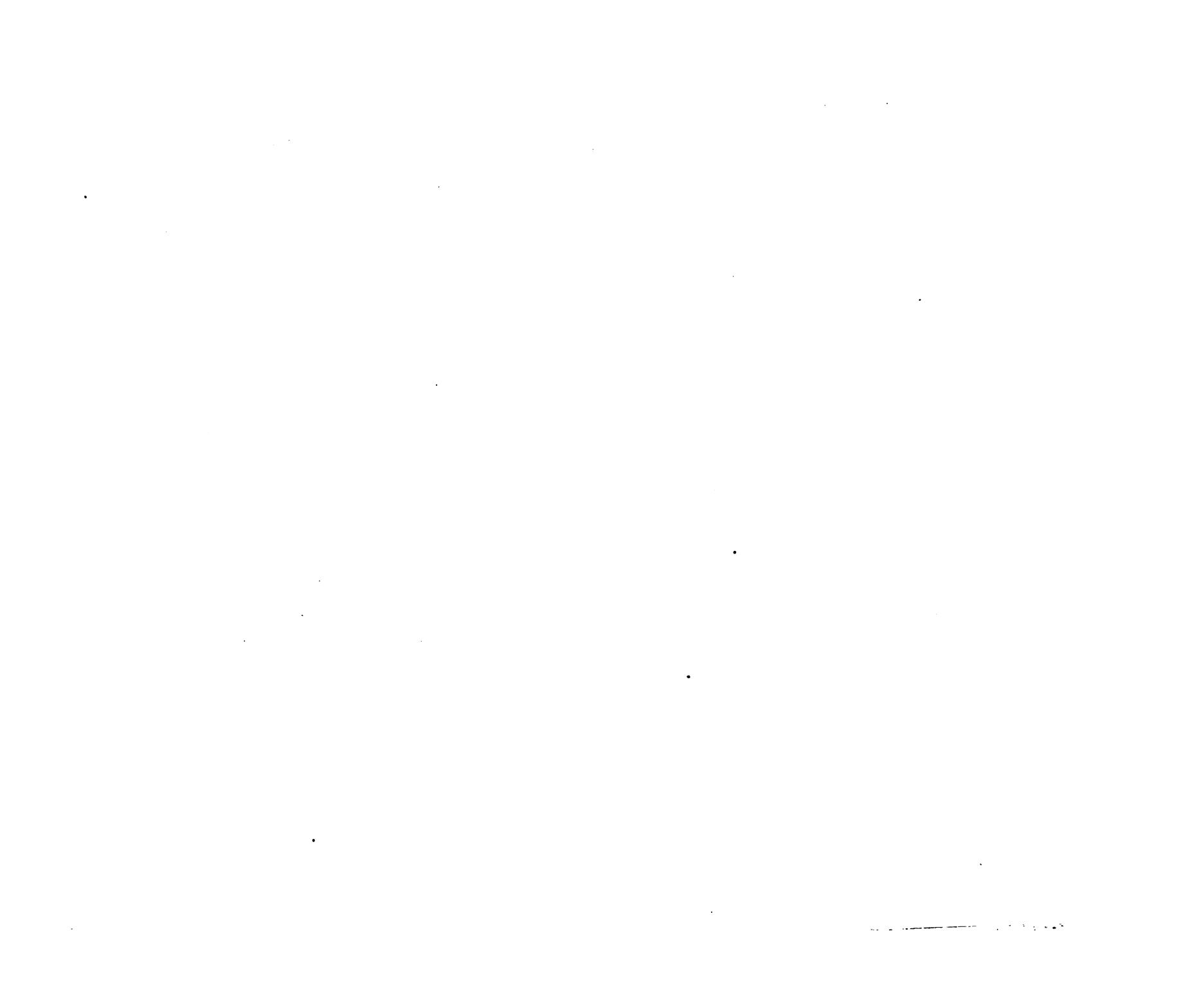






SCHLITZ HOTEL.







SCHLITZ HOTEL.





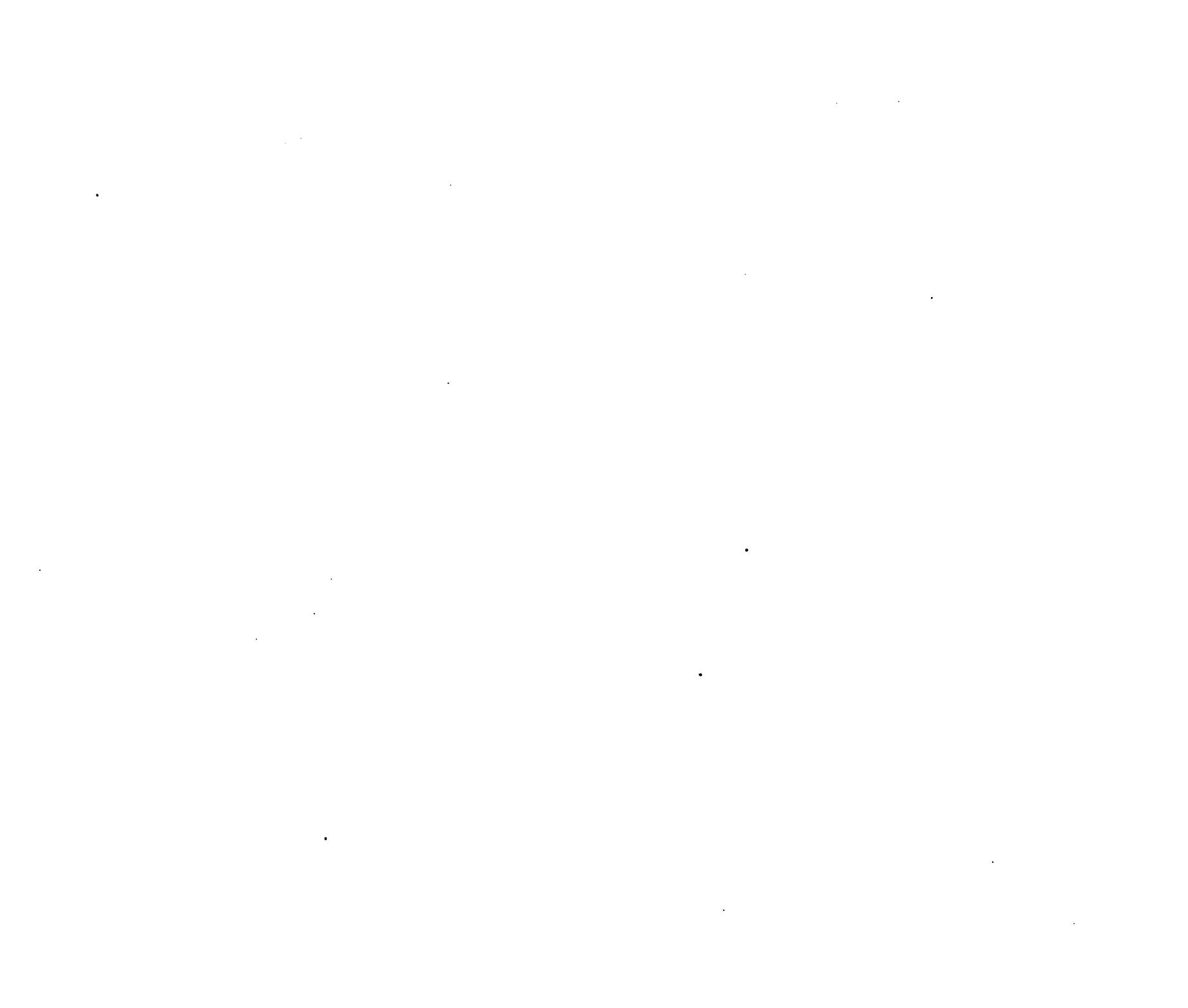
SCHLITZ MOTEL.

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SCHLITZ MOTEL.







SCHLITZ MOTEL.





SCHLITZ HOTEL

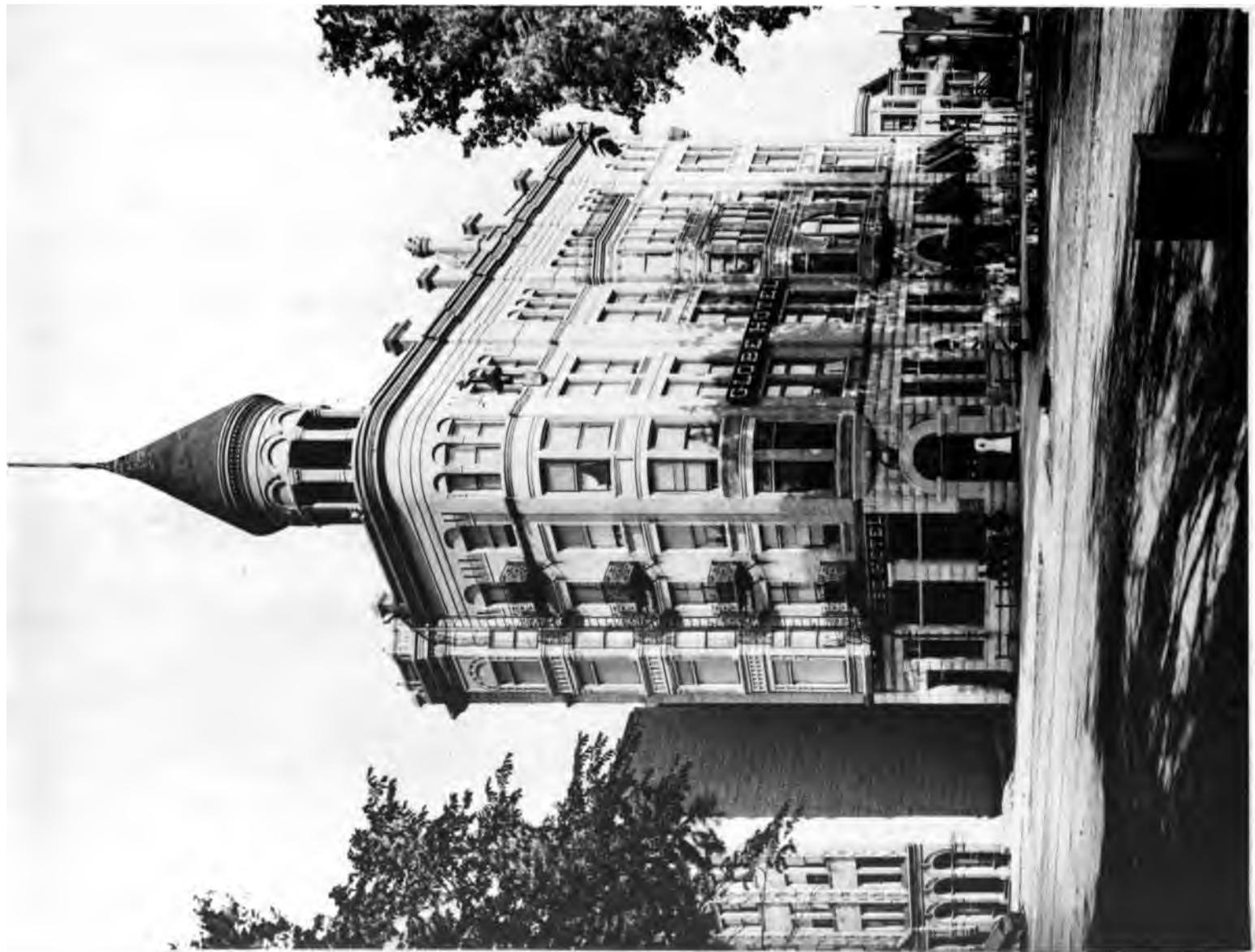






SCHLITZ HOTEL.





GLOBE HOTEL—SCHLITZ BREWING CO., OWNERS.



MILWAUKEE CLUB

UNIV
OF



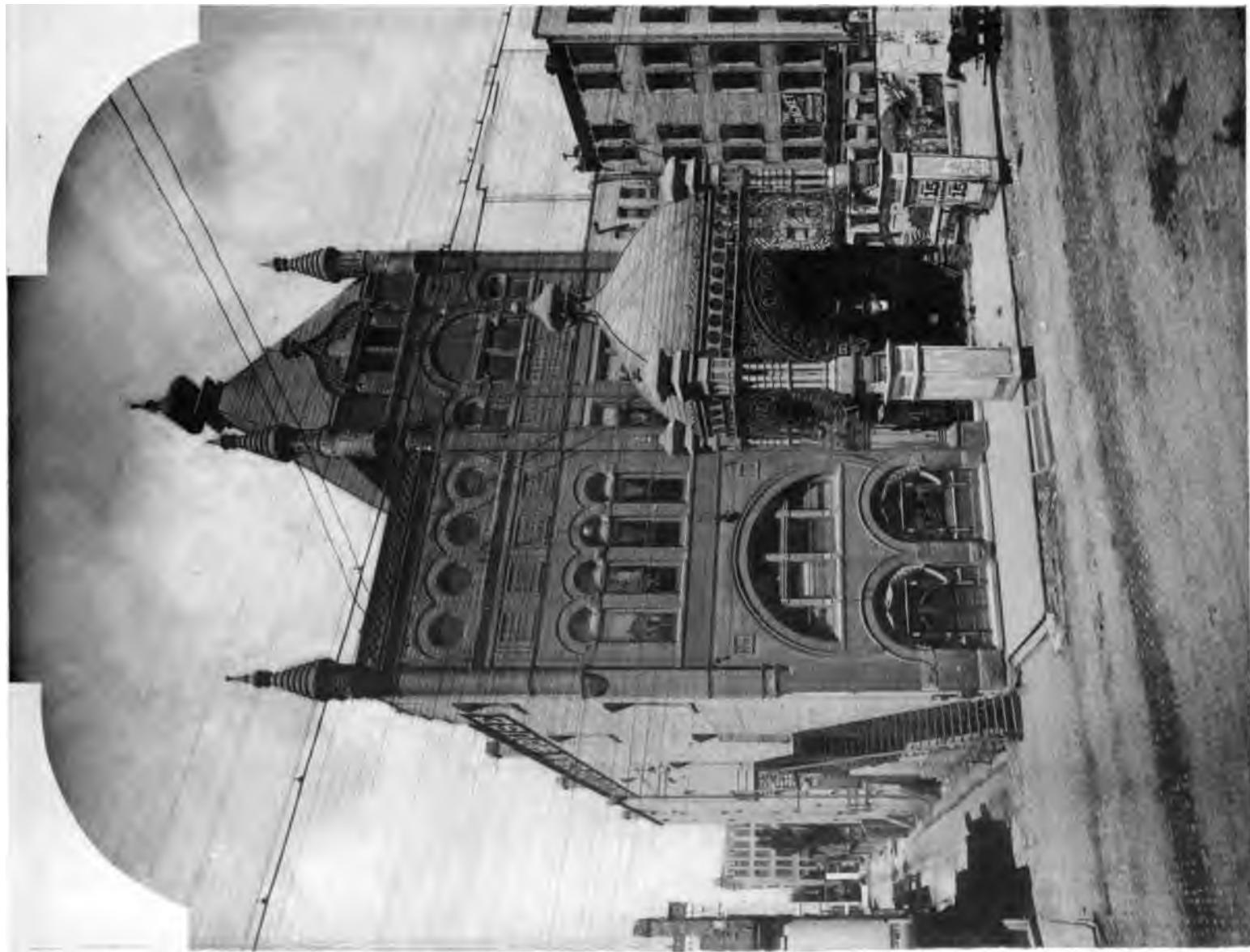
PHOENIX CLUB.





DAVIDSON THEATRE.

MILWAUKEE THEATRE CO., LESSEES.



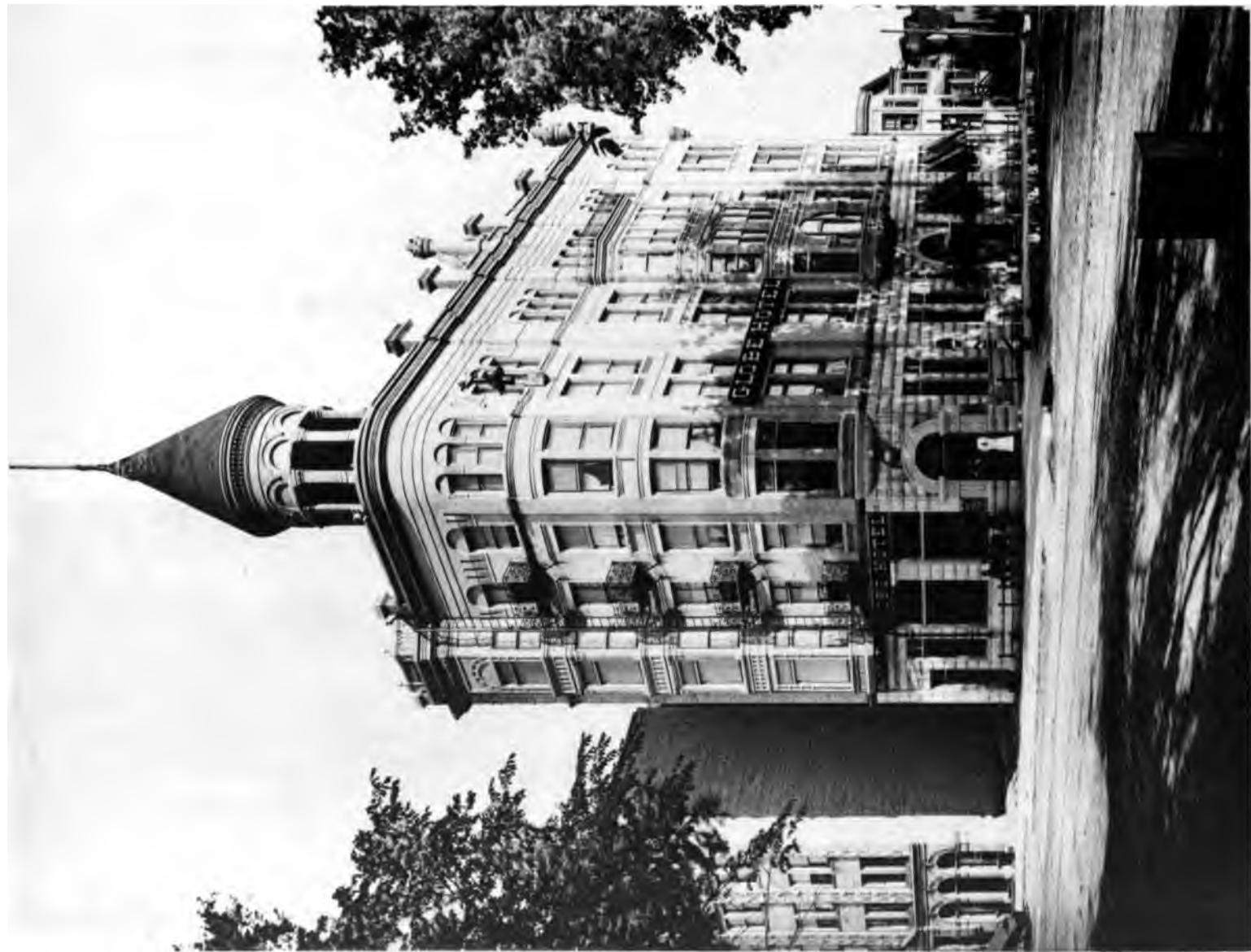
3. 33 - OPERA HOUSE

UNIK
OF



SCHLITZ HOTEL.





GLOBE MOTEL—SCHLITZ BREWING CO., OWNERS.



MILWAUKEE CLUB



PHOENIX CLUB.



DAVIDSON THEATRE.

MILWAUKEE THEATRE CO., LESSEES.



BUIOU OPERA HOUSE.

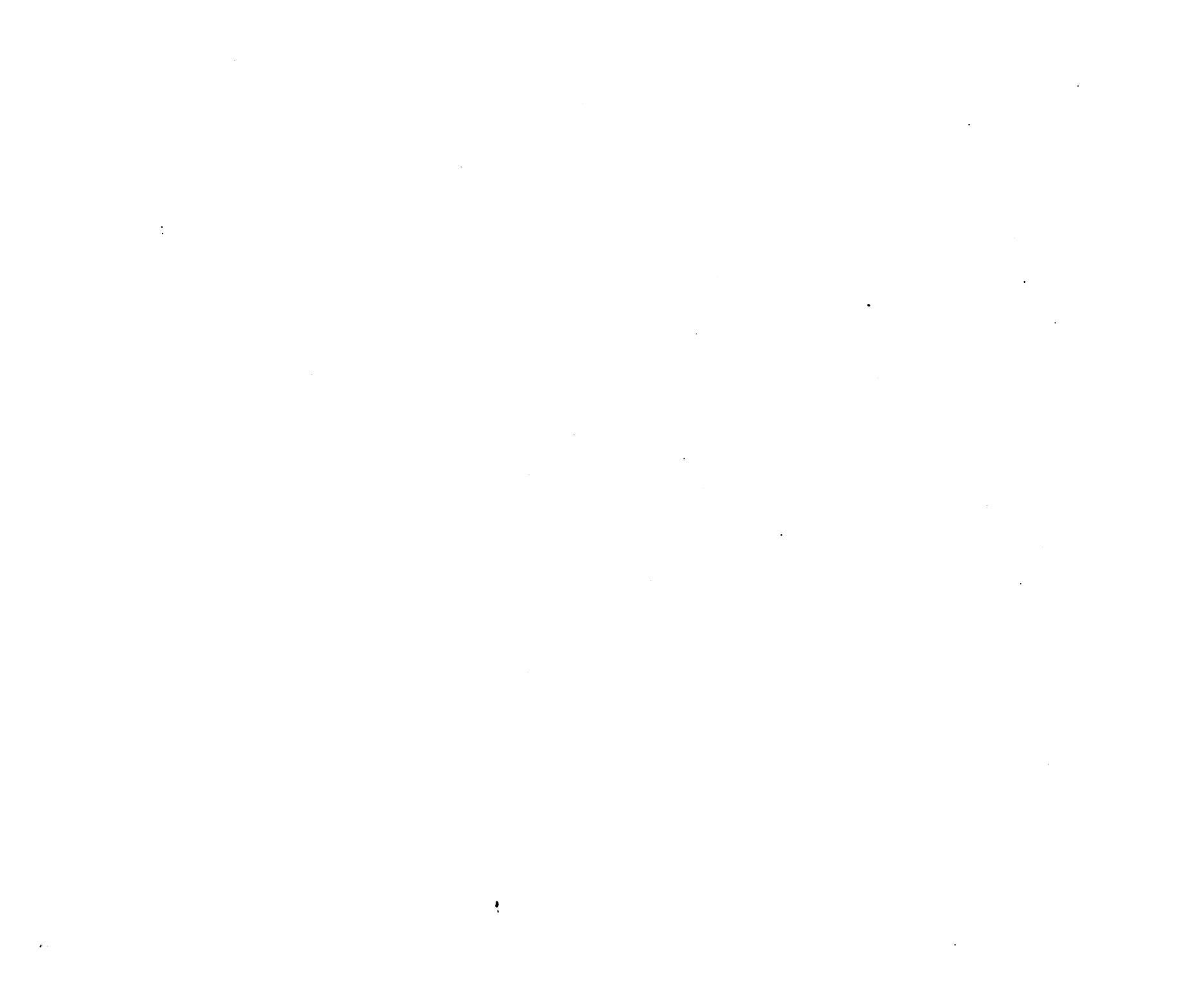
UNIV
20



THEATRE, 1870-1875



CHICAGO STOCK EXCHANGE





CHICAGO & NORTHWESTERN R. R. DEPOT.





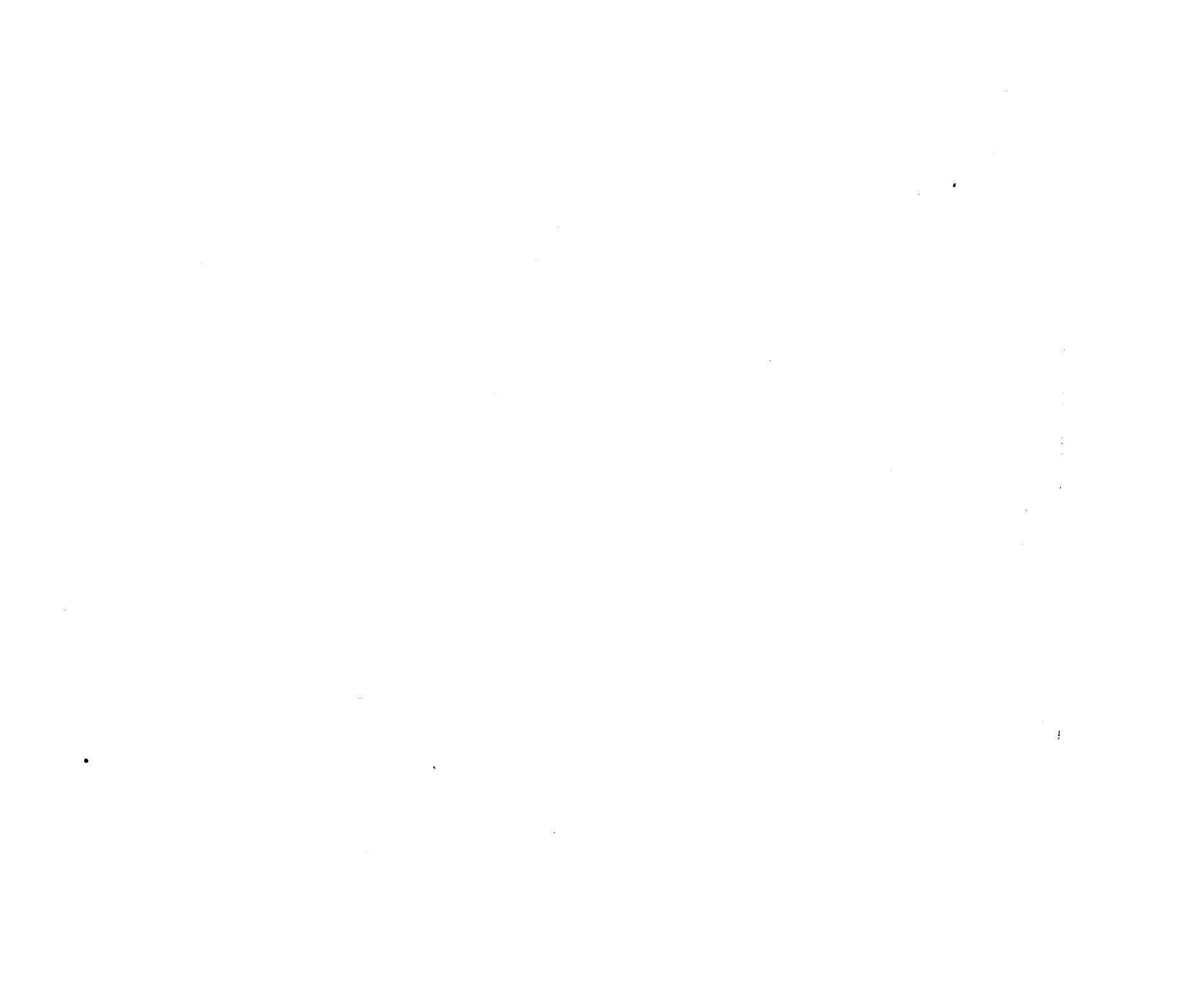
CHICAGO & NORTHWESTERN R. R. DEPOT.





UNION ART GALLERY

U.N.
1900





NATIONAL SOLDIERS' HOME.





POLICE STATION.

COUNTY JAIL.

LIGHT HORSE SQUADRON ARMORY.



POWELL AT WHITEFISH RAY







LOOKING EAST FROM PABST BUILDING.







LOOKING SOUTH FROM PABST BUILDING.



LOOKING NORTHEAST FROM FANEUIL BUILDING.





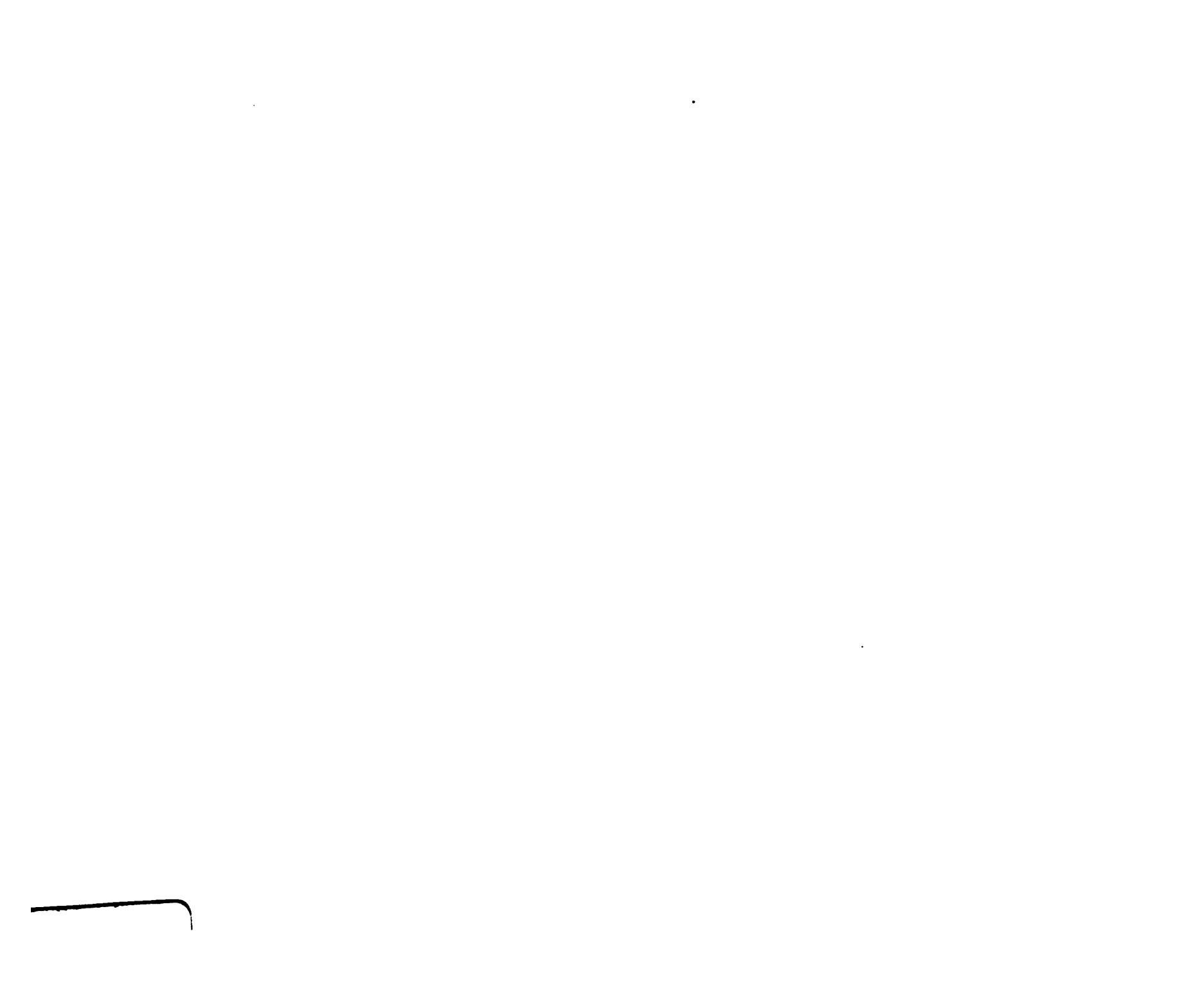
Fig. 10. - A photograph of a city street scene, likely New York City, showing a large building under construction with scaffolding and a sign for "GIMRFI DRY GOODS".



POLICE STATION.

COUNTY JAIL.

EIGHT HORSE SQUADRON ARMORY





POLICE STATION

COUNTY JAIL.

LIBRARY OF CONGRESS



POLICE STATION.

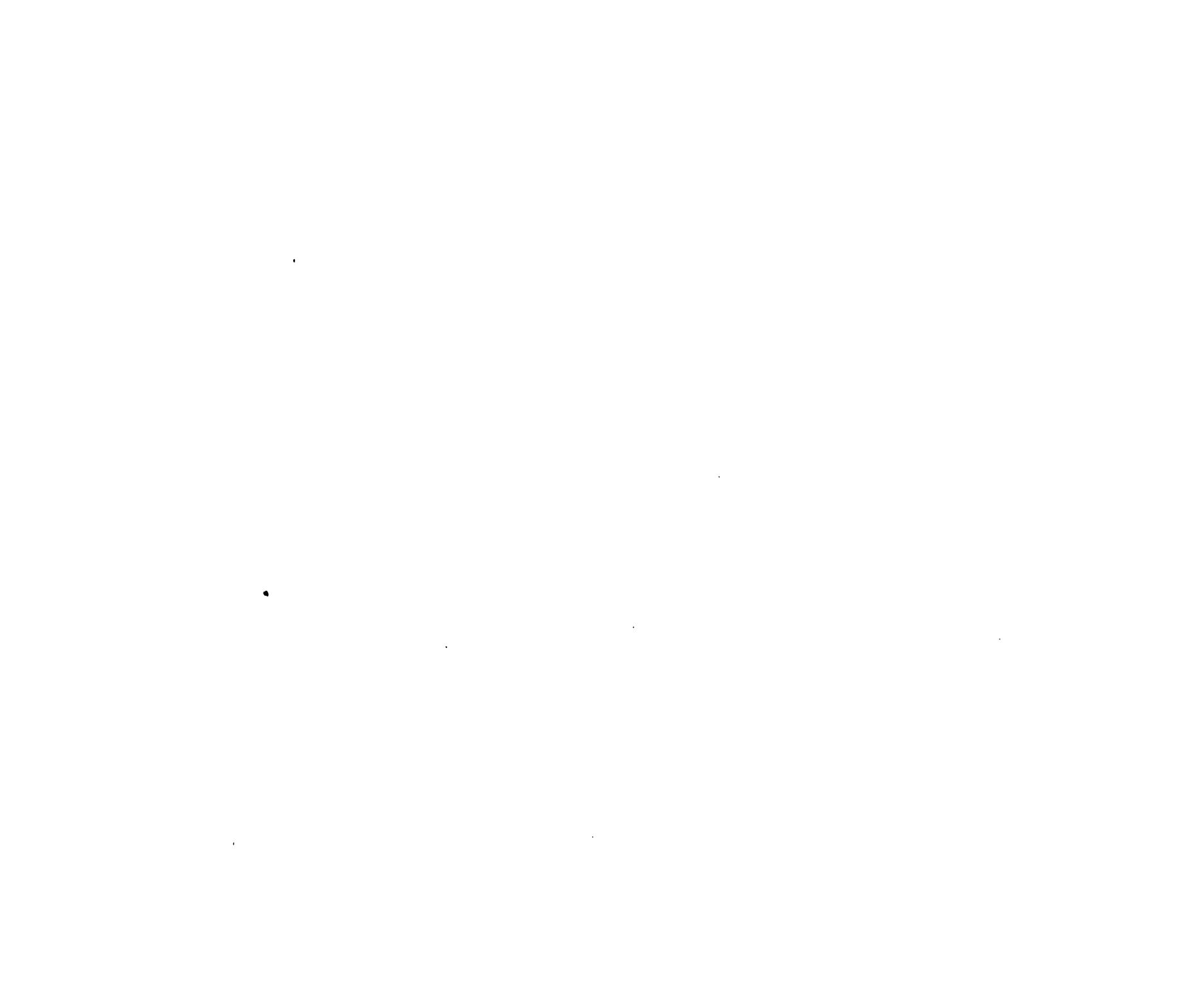
COUNTY JAIL.

LIGHT HORSE SQUADRON ARMORY



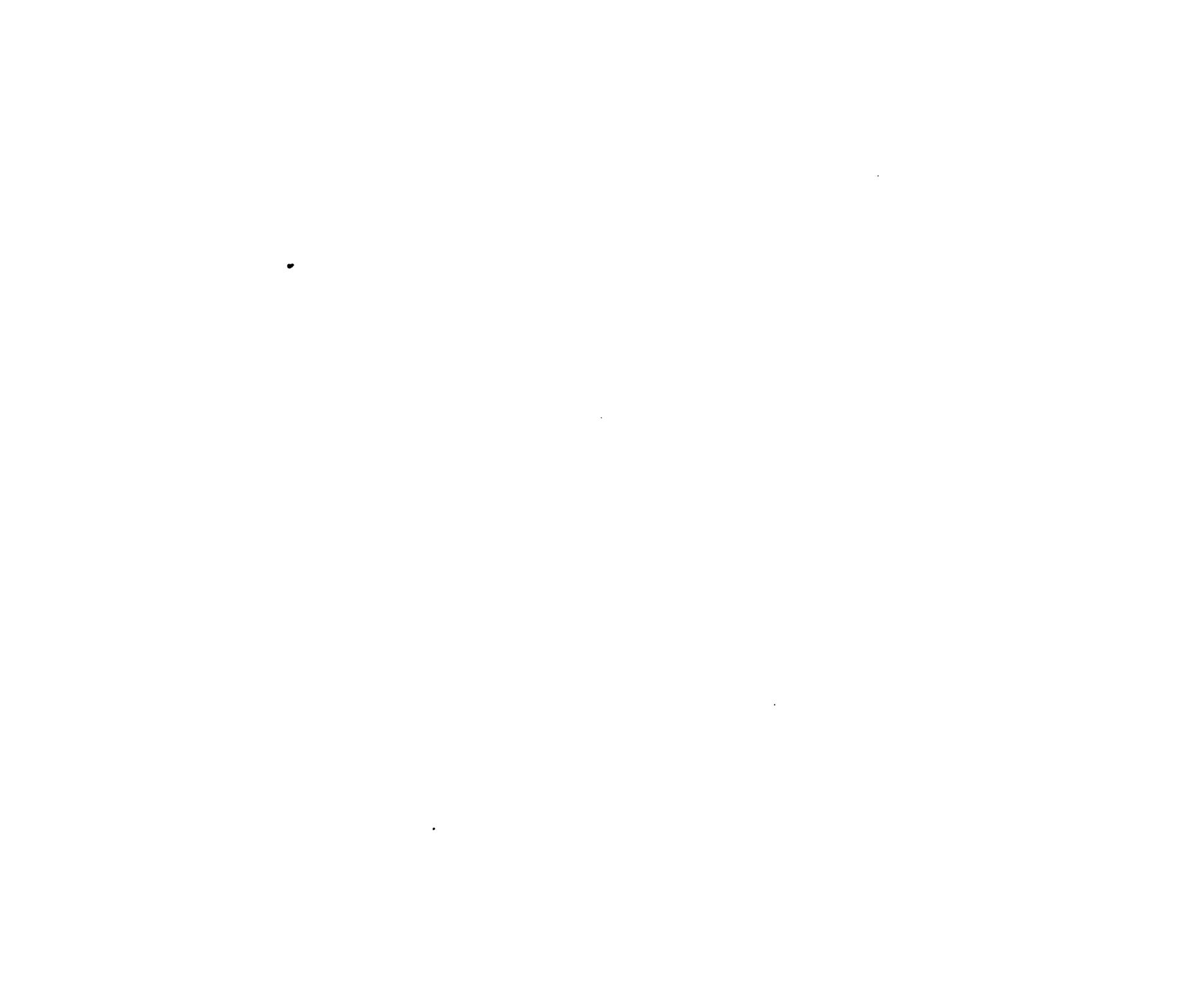
RESORT AT WHITEFISH BAY







LOOKING EAST FROM PABST BUILDING.





LOOKING SOUTH FROM PABST BUILDING



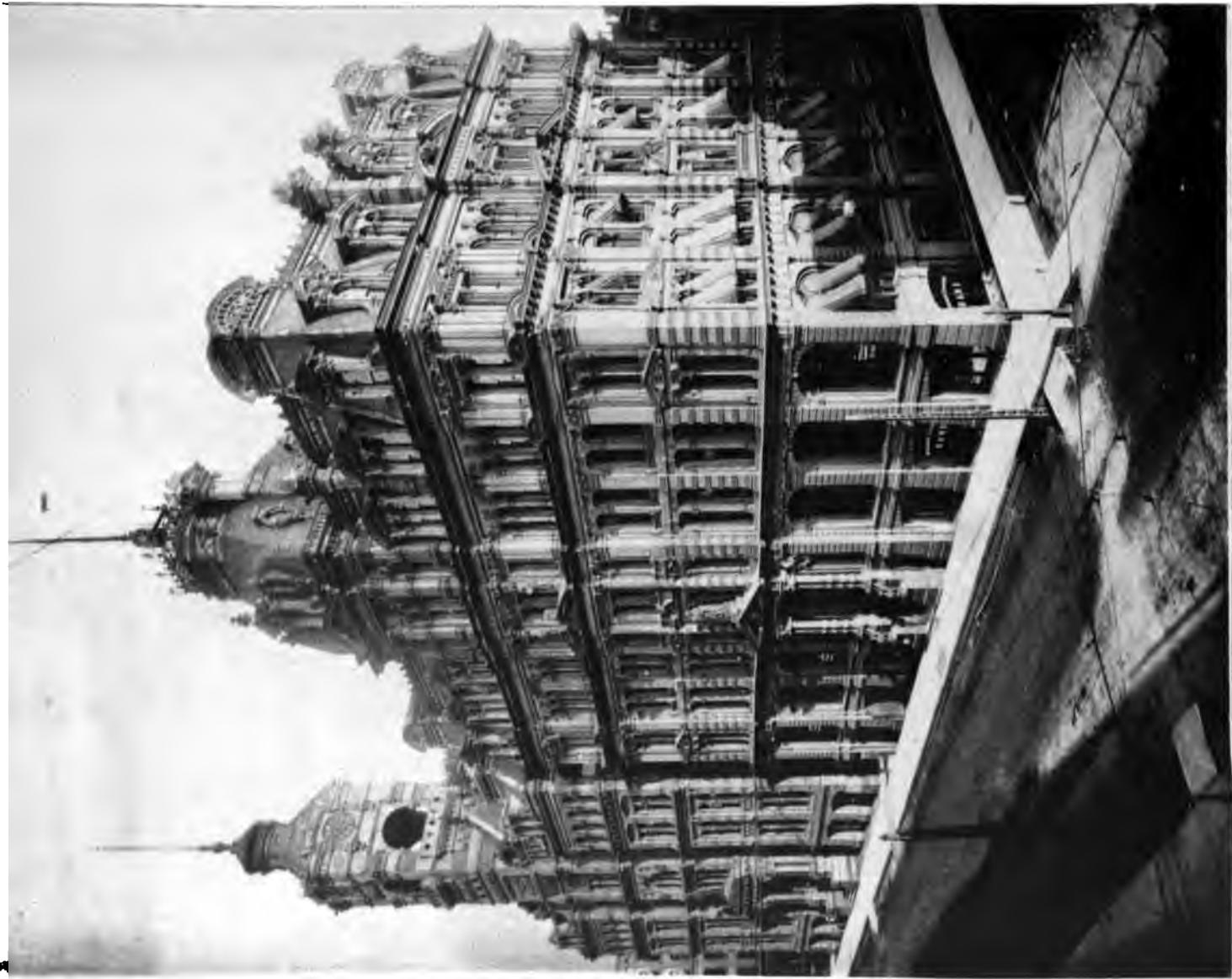
LOOKING NORTHEAST FROM PABST BUILDING.

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— 1880 — 1890 — 1900 — 1910 — 1920 — 1930 — 1940 — 1950 — 1960 — 1970 — 1980 — 1990 — 2000 —

WIS MARKNE & FINE AG CO BANK BUILDING
MERCHANTS EXCHANGE BANK





CHAMBER OF COMMERCE.



PABST BUILDING.

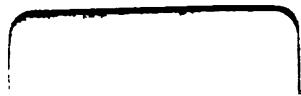




MERRILL BUILDING.



CHAN YAN TONG STUDIO - HONG





POLICE STATION.

COUNTY JAIL.

LIGHT MORSE SQUADRON ARMORY



ESME ON AT WHITEFISH BAY





1900







LOOKING EAST FROM PABST BUILDING.

UNI.



LOOKING SOUTH FROM FARNST BUILDING.

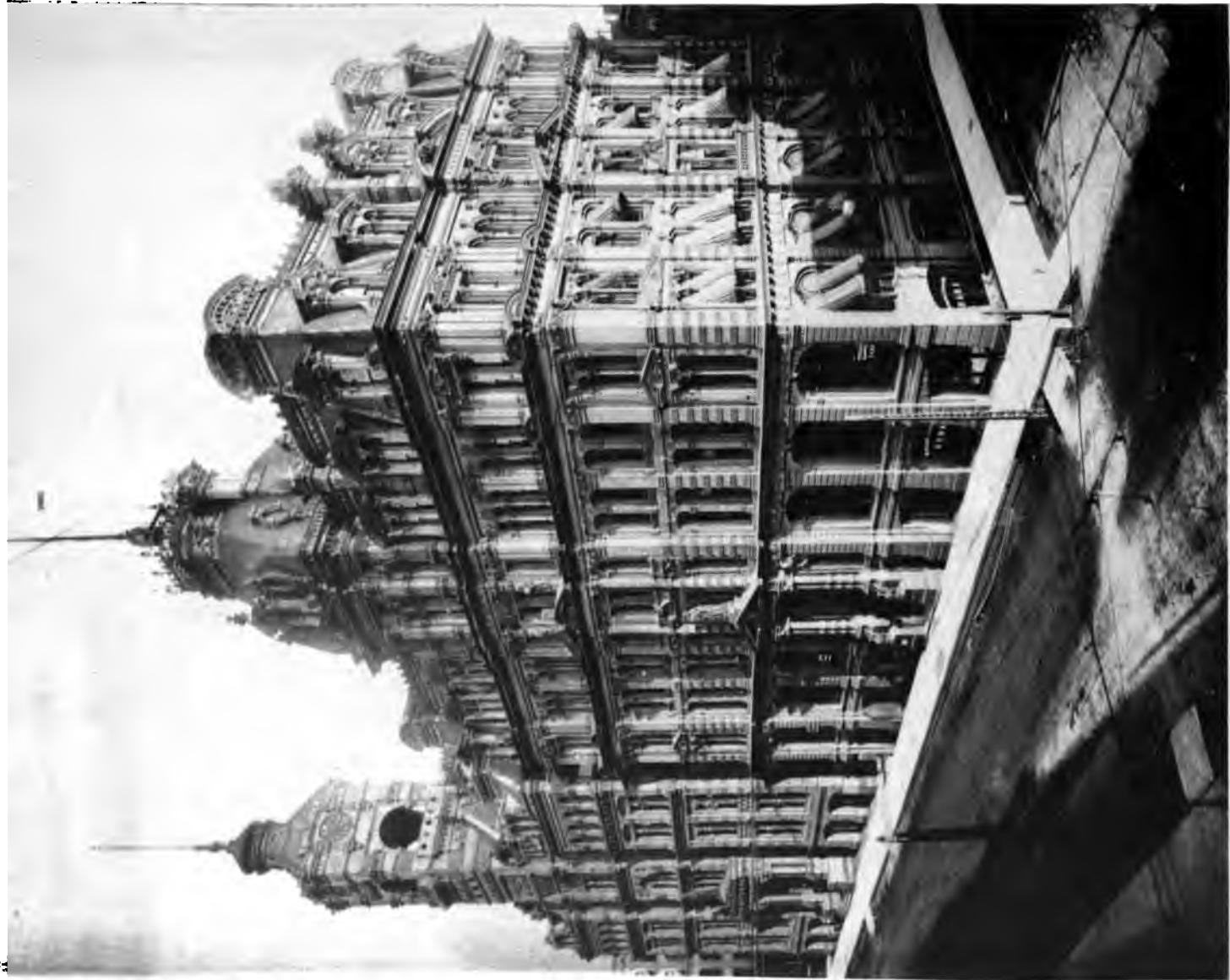


LOOKING NORTHEAST FROM PABST BUILDING



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MERCHANTS EXCHANGE BANK

WALL STREET, NEW YORK CITY, U.S.A.



CHAMBER OF COMMERCE.

“



PABST BUILDING.



MERRILL BUILDING.



10 CANADIAN TRAVELER



NORTHERN MUTUAL LIFE INSURANCE BUILDING



COLBY & ABBOT BUILDING.





OFFICE OF THE MILWAUKEE JOURNAL.

JULY 1877. GRANT, N.Y.





OFFICE OF THE MILWAUKEE JOURNAL

1111 BROADWAY





OFFICE OF THE MILWAUKEE JOURNAL



OFFICE OF THE MILWAUKEE JOURNAL

M. L. M.



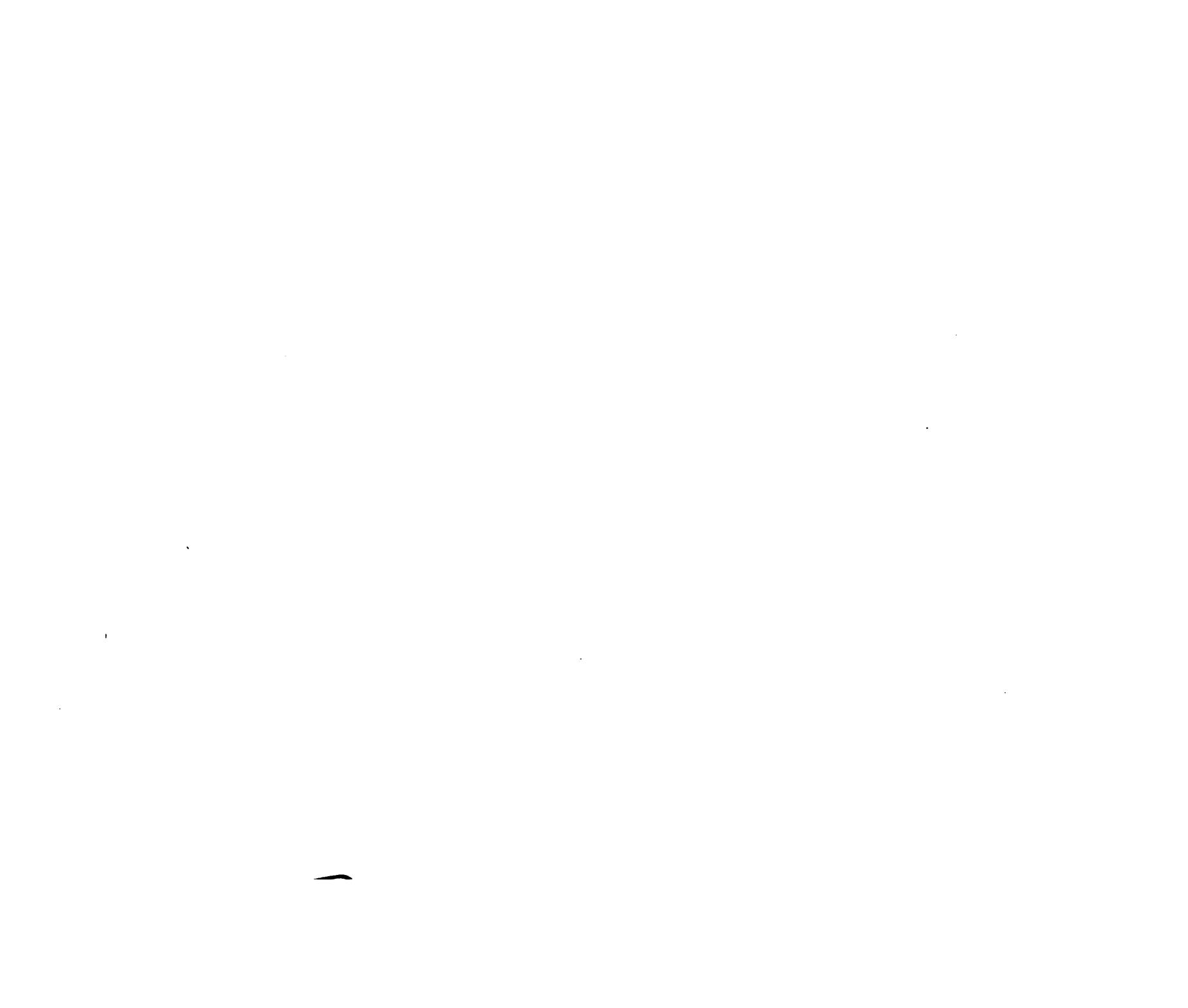
OFFICE OF THE MILWAUKEE JOURNAL

THE MILWAUKEE JOURNAL



OFFICE OF THE MILWAUKEE JOURNAL.

— M. J. —





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OFFICE OF THE MILWAUKEE JOURNAL.

1905 MILWAUKEE



1880-1890

1880-1890



T. A. CHAPMAN COMPANY.

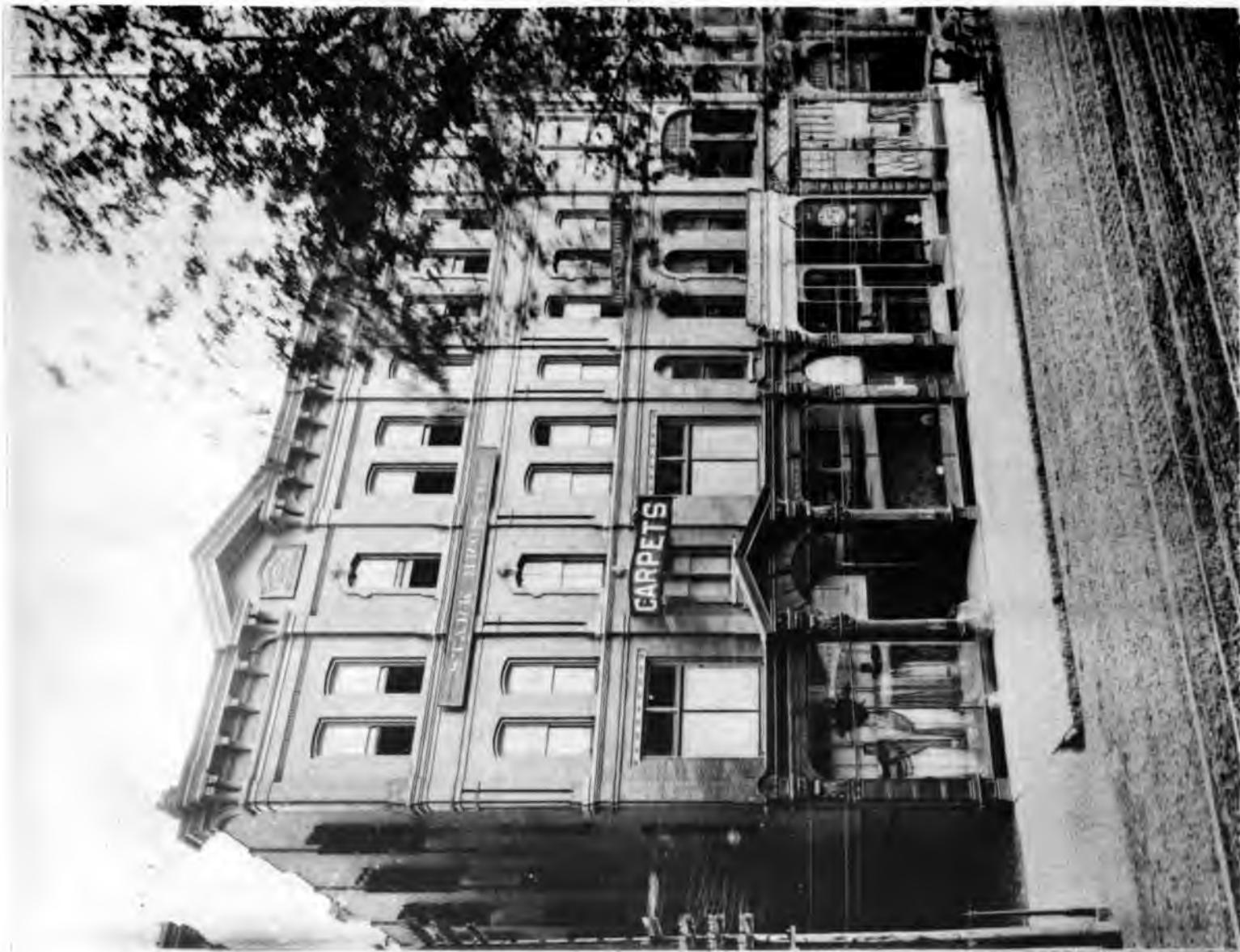




Goldsmith

CARPETS, CURTAINS AND DRAPERIES

UNI



STARK BROS. COMPANY.
CARPETS, CURTAINS, DRAPERS, ETC.



THE CHAS. BAUMBACH COMPANY.



FACTORY.
BEALS, TORREY & COMPANY,
MANUFACTURERS OF BOOTS AND SHOES.

OFFICE AND SALESROOM.



OFFICE OF THE MILWAUKEE JOURNAL

115-117 N. G. M.



W. H. & J. H. CO., BOSTON



LIBRARY OF CONGRESS

DRY Goods



Goldsmith Building.

CARPETS, CURTAINS AND DRAPERIES.

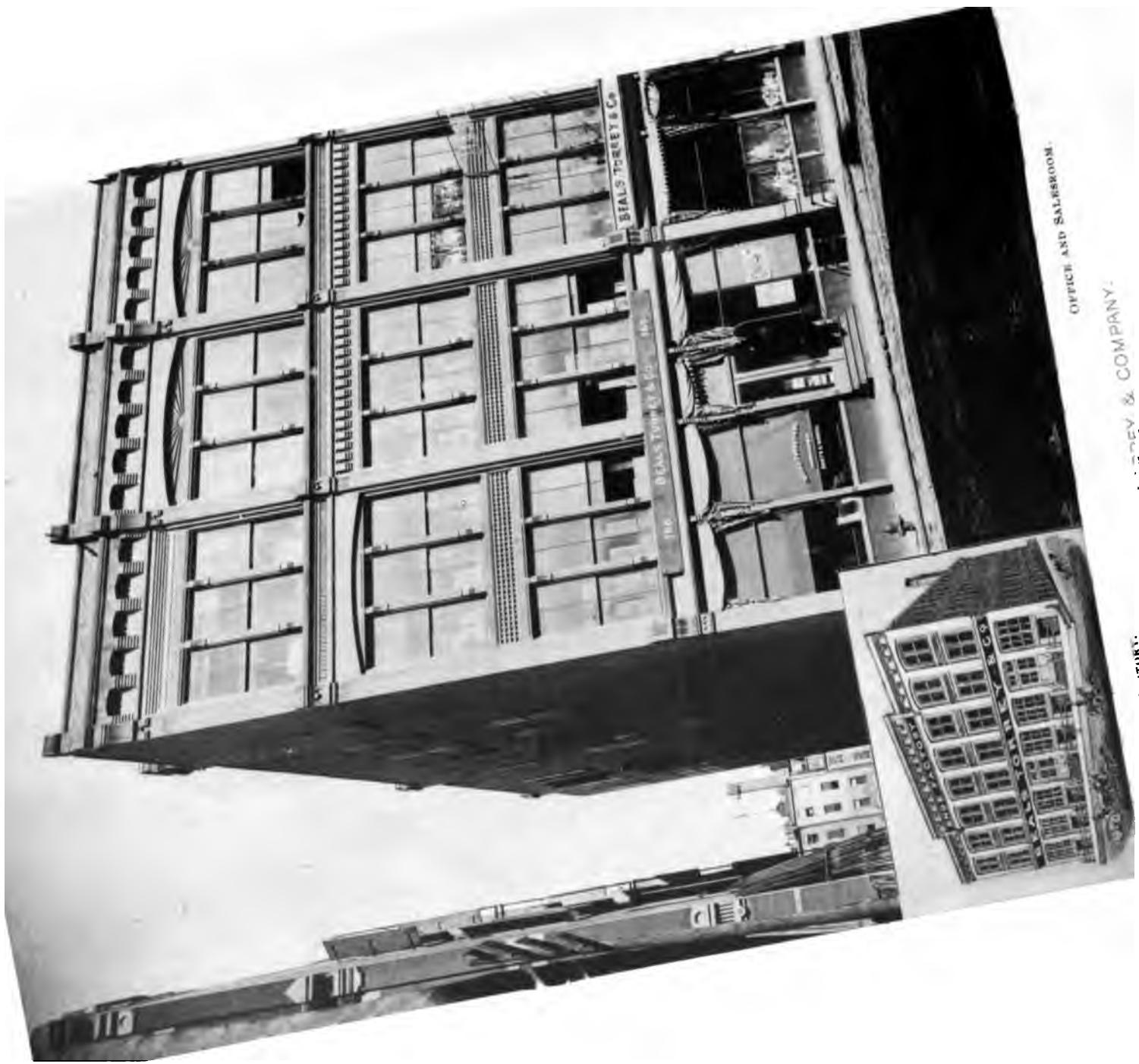


BLACK BROS. COMPANY
CARPETS, CURTAINS, DRAPERS, ETC.

111



THE CHAS. BAUMBACH COMPANY.



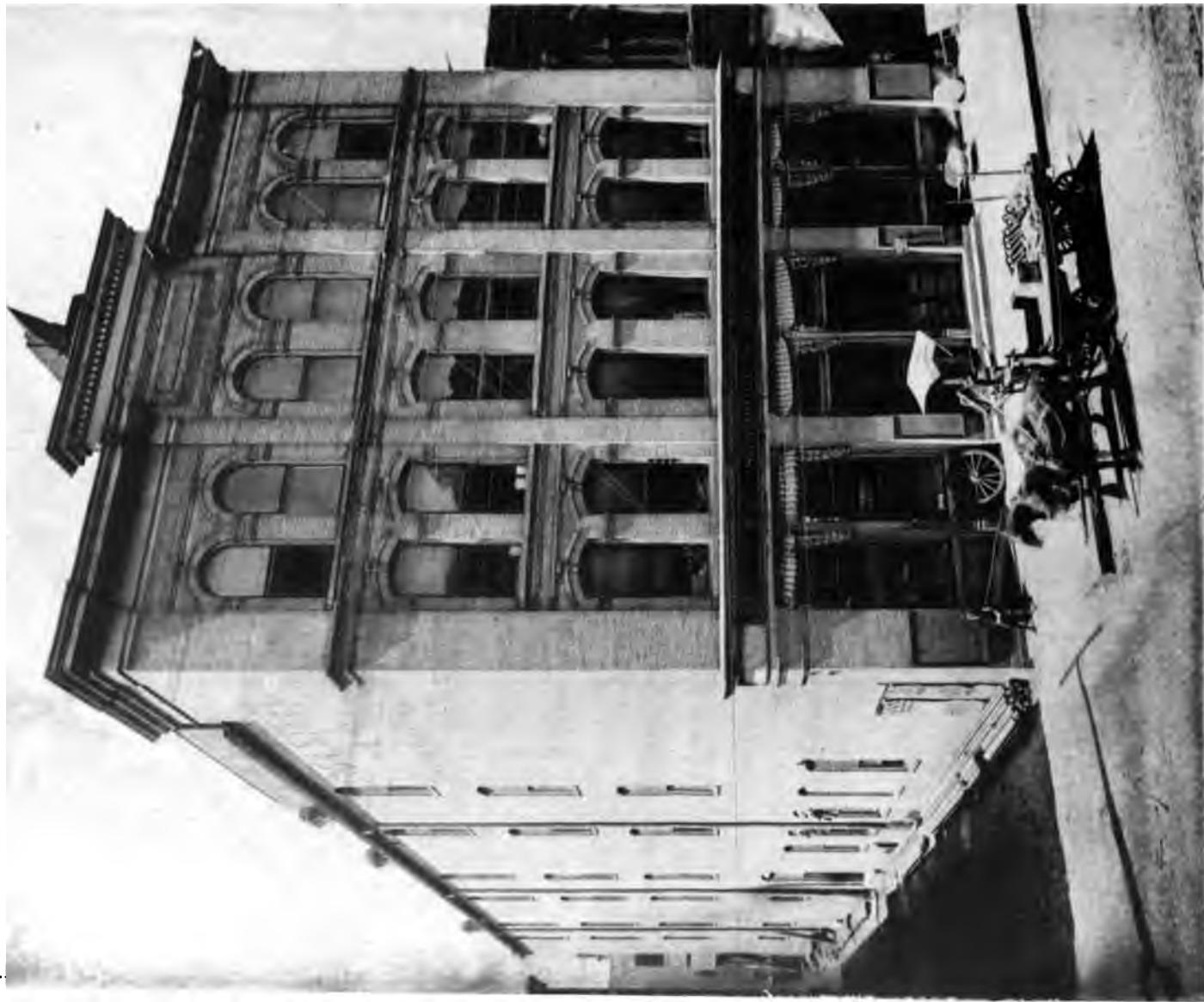
STEAL'S TORREY & CO.
FACTORY & OFFICE
MANUFACTURERS OF RENTS AND STORES

OFFICE AND SALESROOM.

STEAL'S TORREY & CO.

FACTORY.

SUBDOL & SONS IRON COVERS
JEWELERS IN IRON AND STEEL.





Block Co.

MANUFACTURERS OF PARLOR FURNITURE.

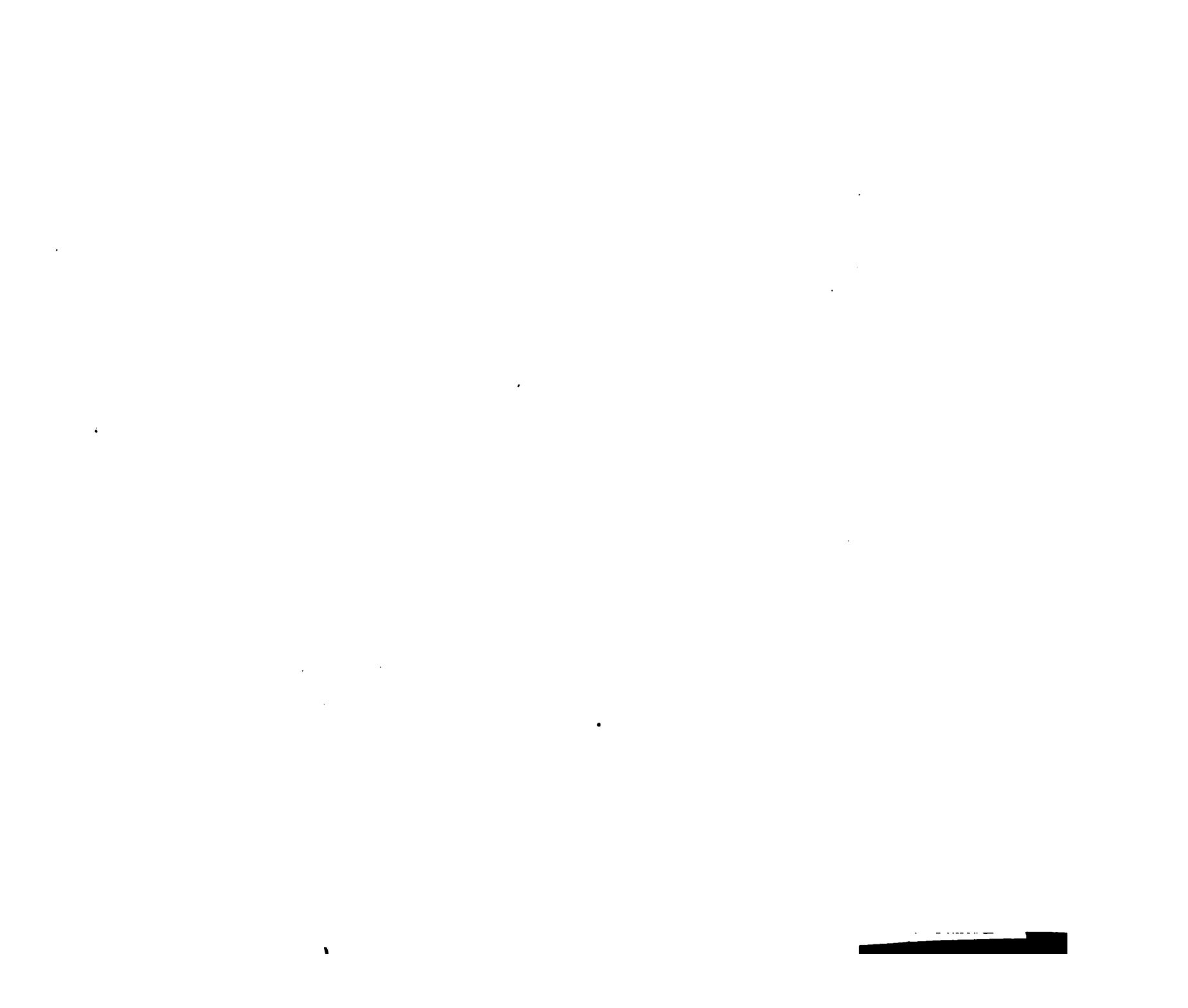


MENDEL, SMITH & COMPANY.

IMPORTERS AND GROCERS.



F. F. ADAMS TOBACCO COMPANY



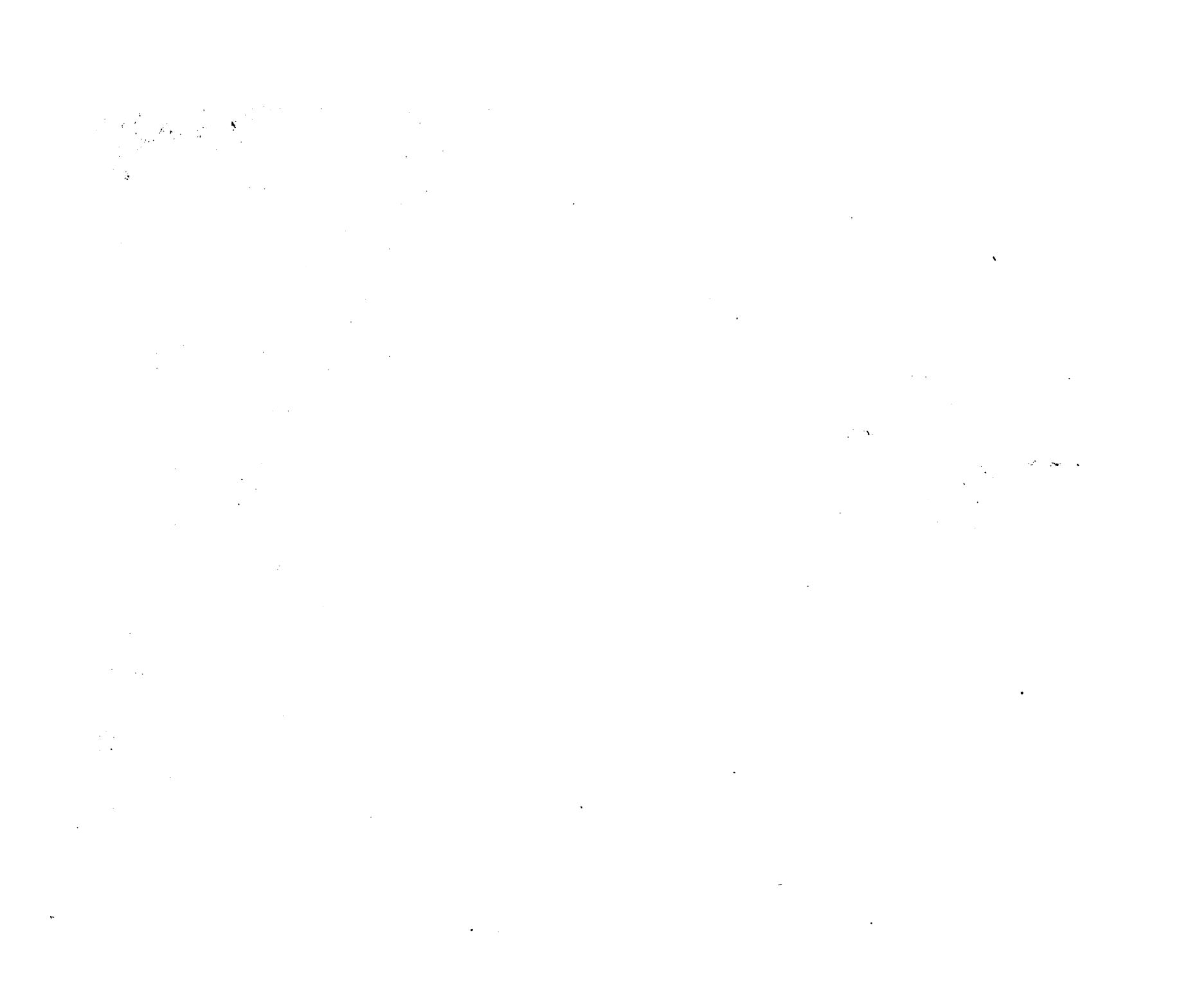


THE SENTINEL BUILDING.

SEN
OF



THE EVENING WISCONSIN BUILDING.





THE MEROLD BUILDING.

210





THE GERMAN A. BUILDING





THE GERMANIA BUILDING





FISHERMAN'S HUTS ON JONES ISLAND.



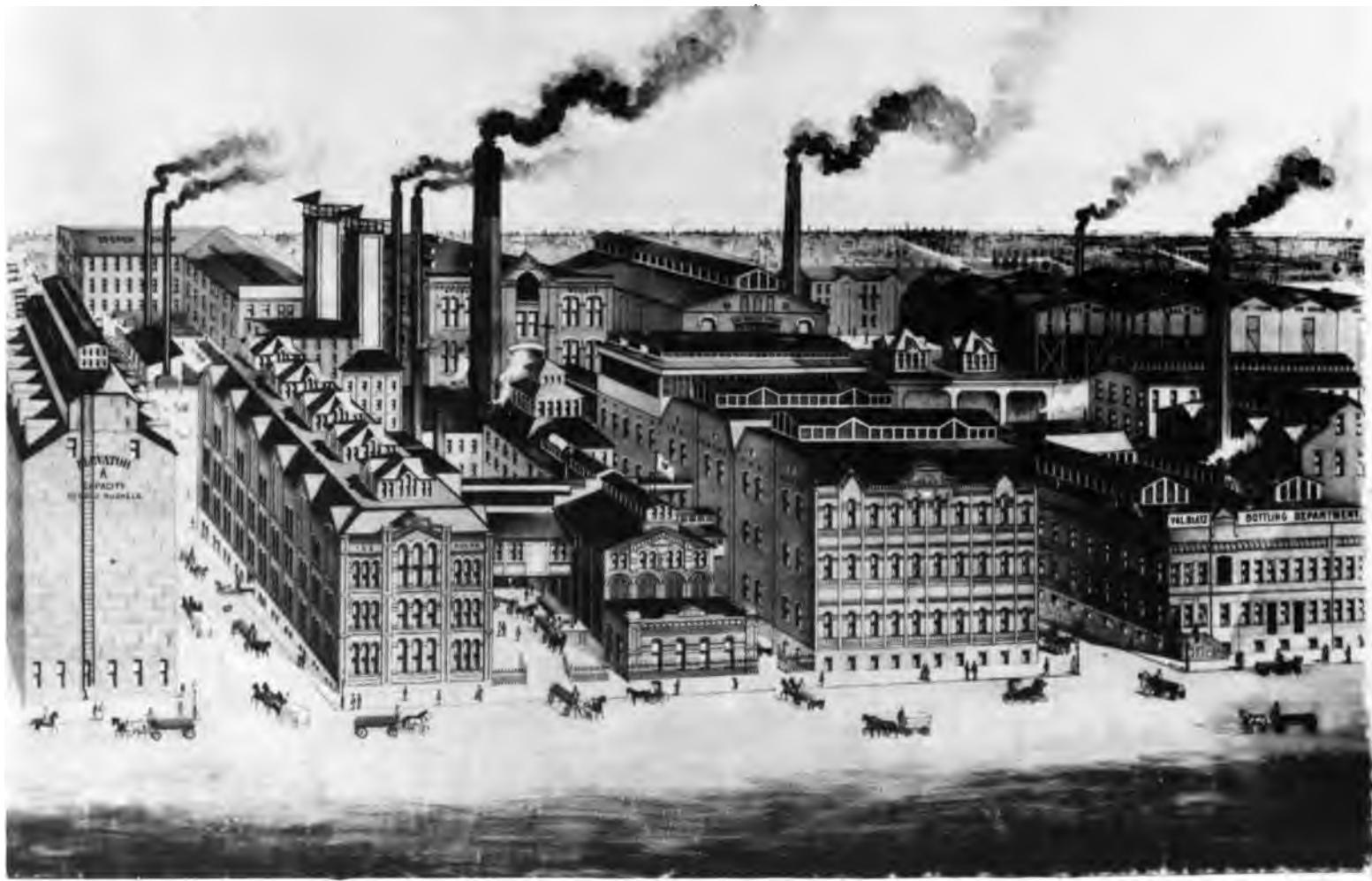


PABST BREWING COMPANY.



JOS. SCHLITZ BREWING COMPANY.





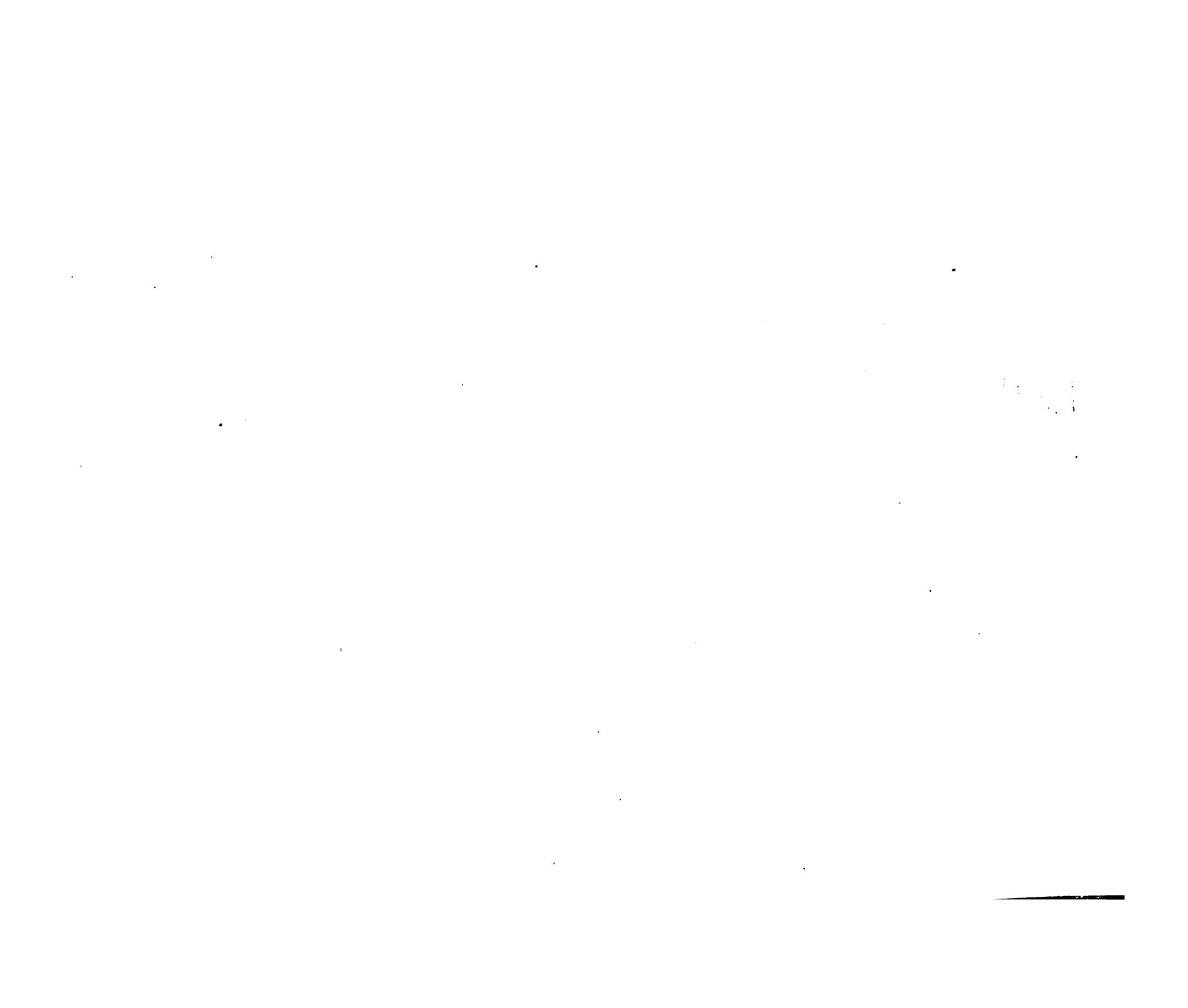
VAL. BLATZ BREWING COMPANY.





THE GERMANIA BUILDING







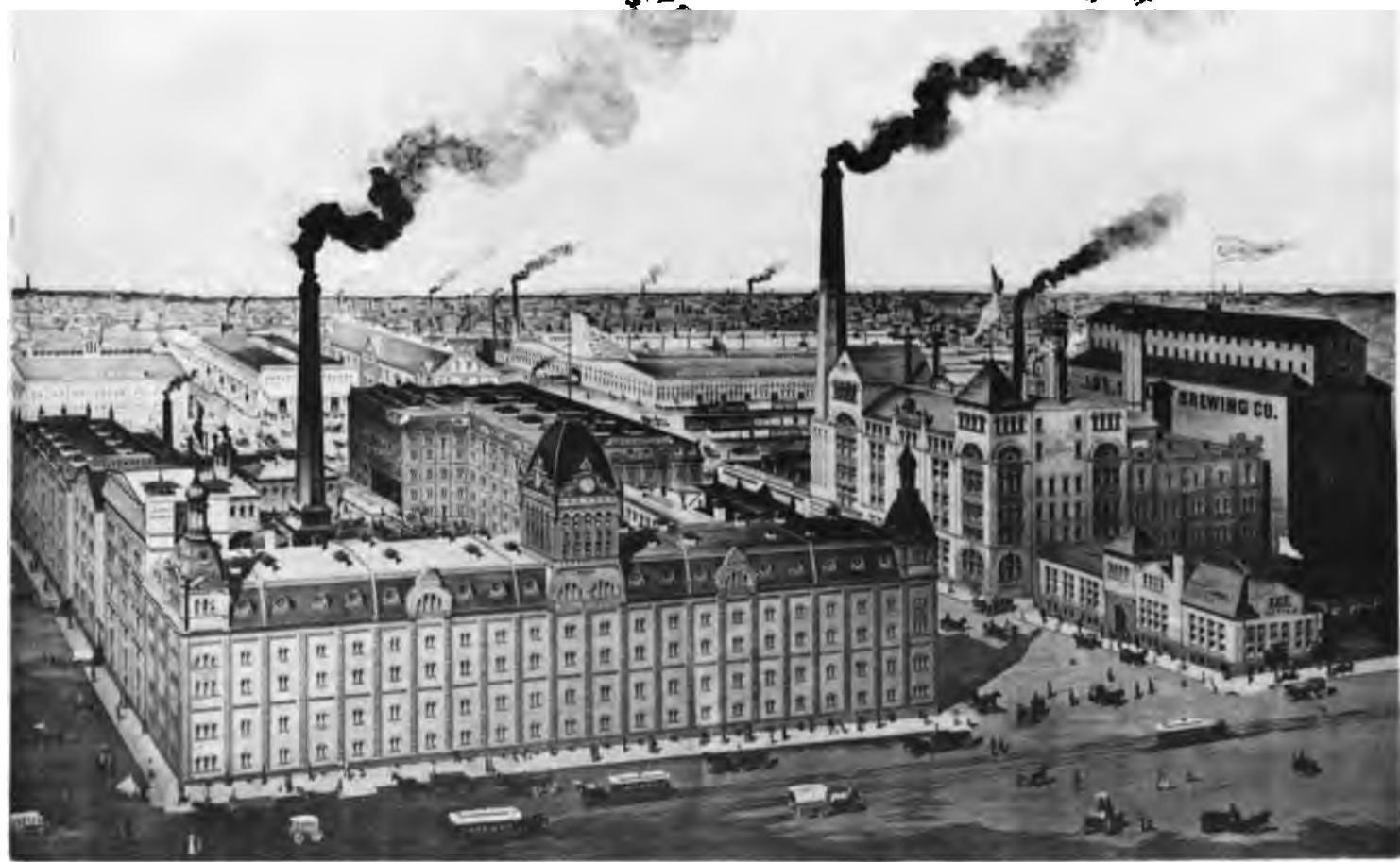
FISHERMAN'S HUTS ON JONES ISLAND.

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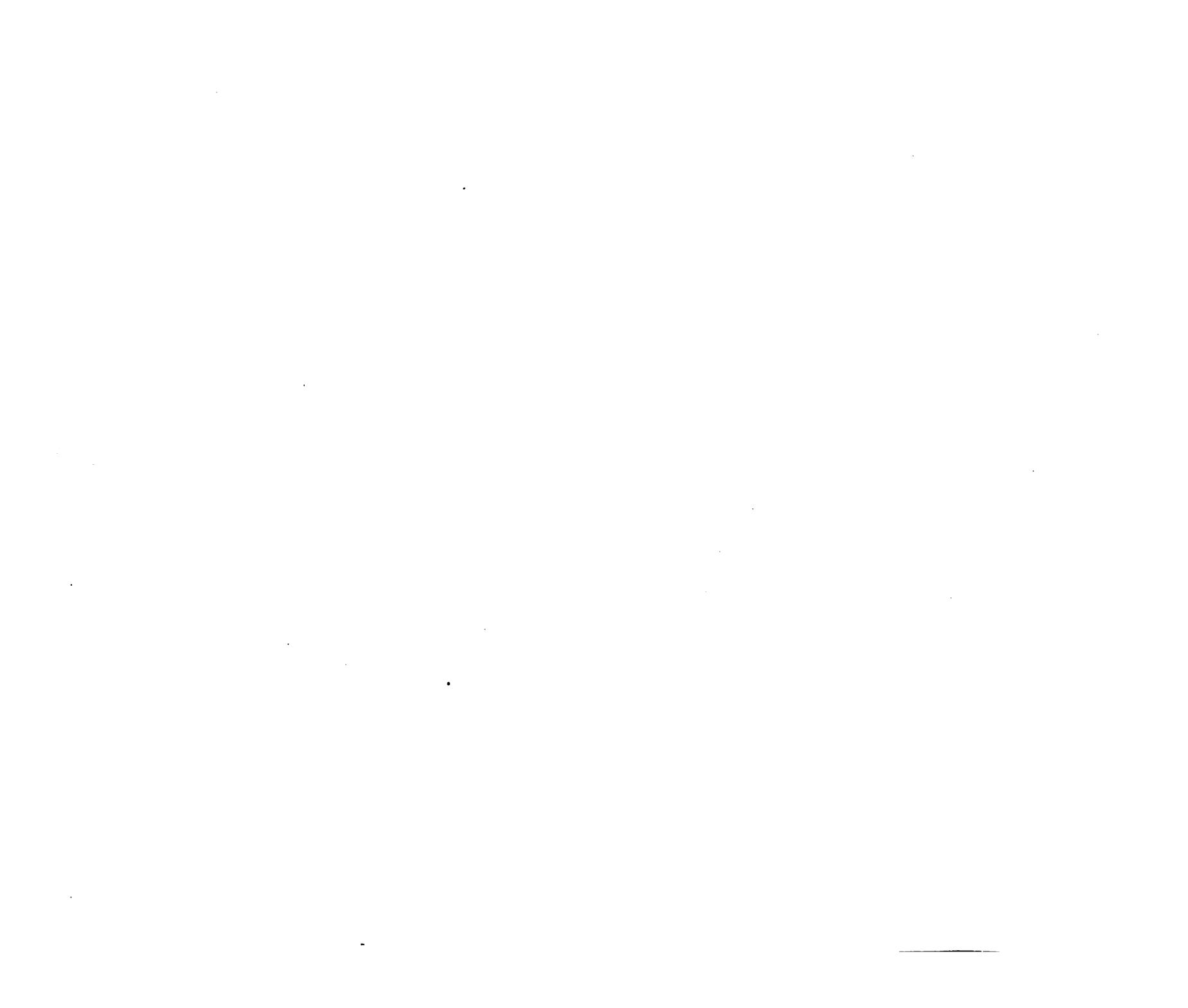
PABST BREWING COMPANY.

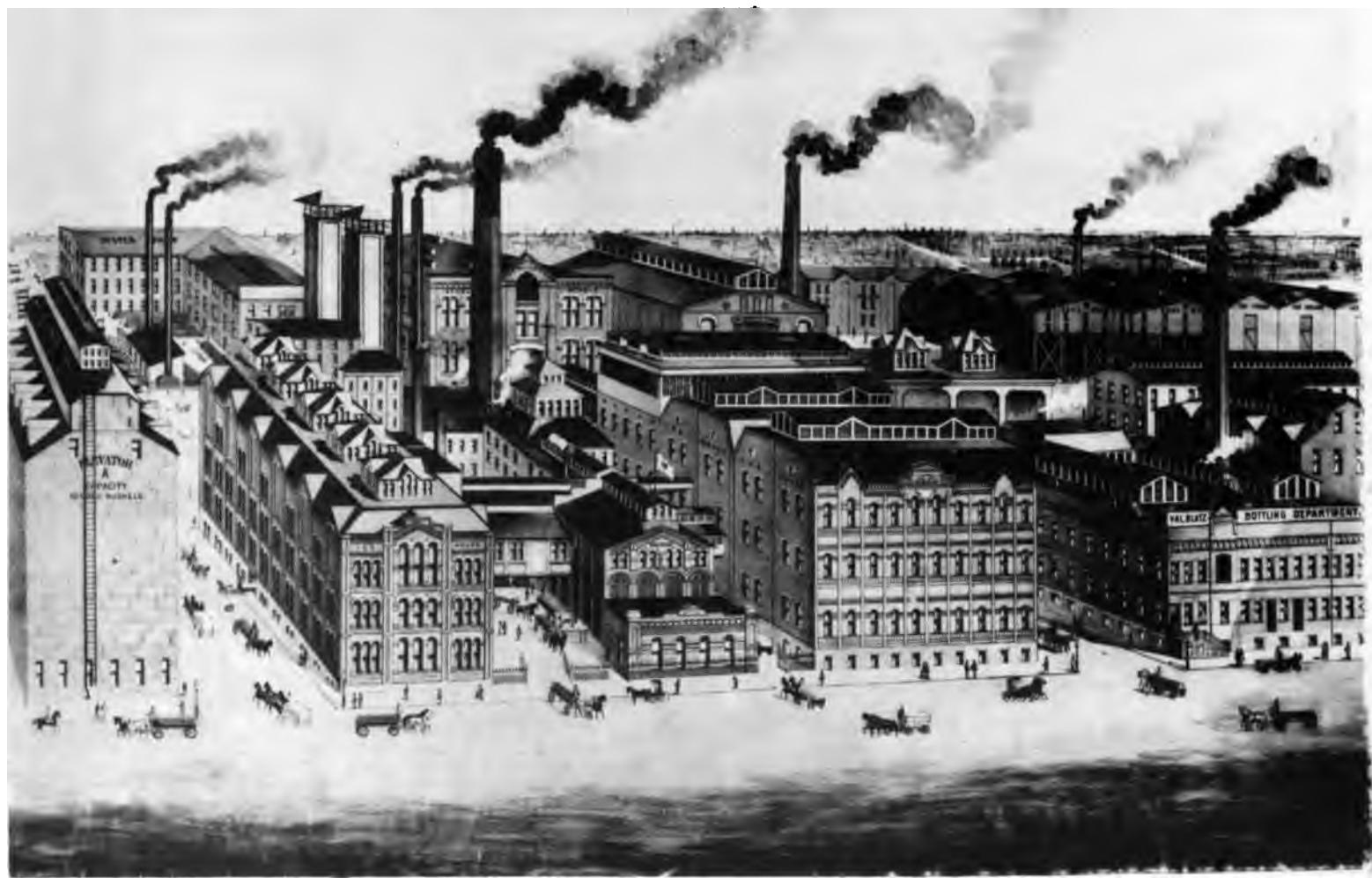




JOS. SCHLITZ BREWING COMPANY.

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VAL. BLATZ BREWING COMPANY.

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FALK, JUNG & BORCHERT BREWING COMPANY.





FRED. MILLER BREWING COMPANY.







FRED. MILLER BREWING COMPANY.





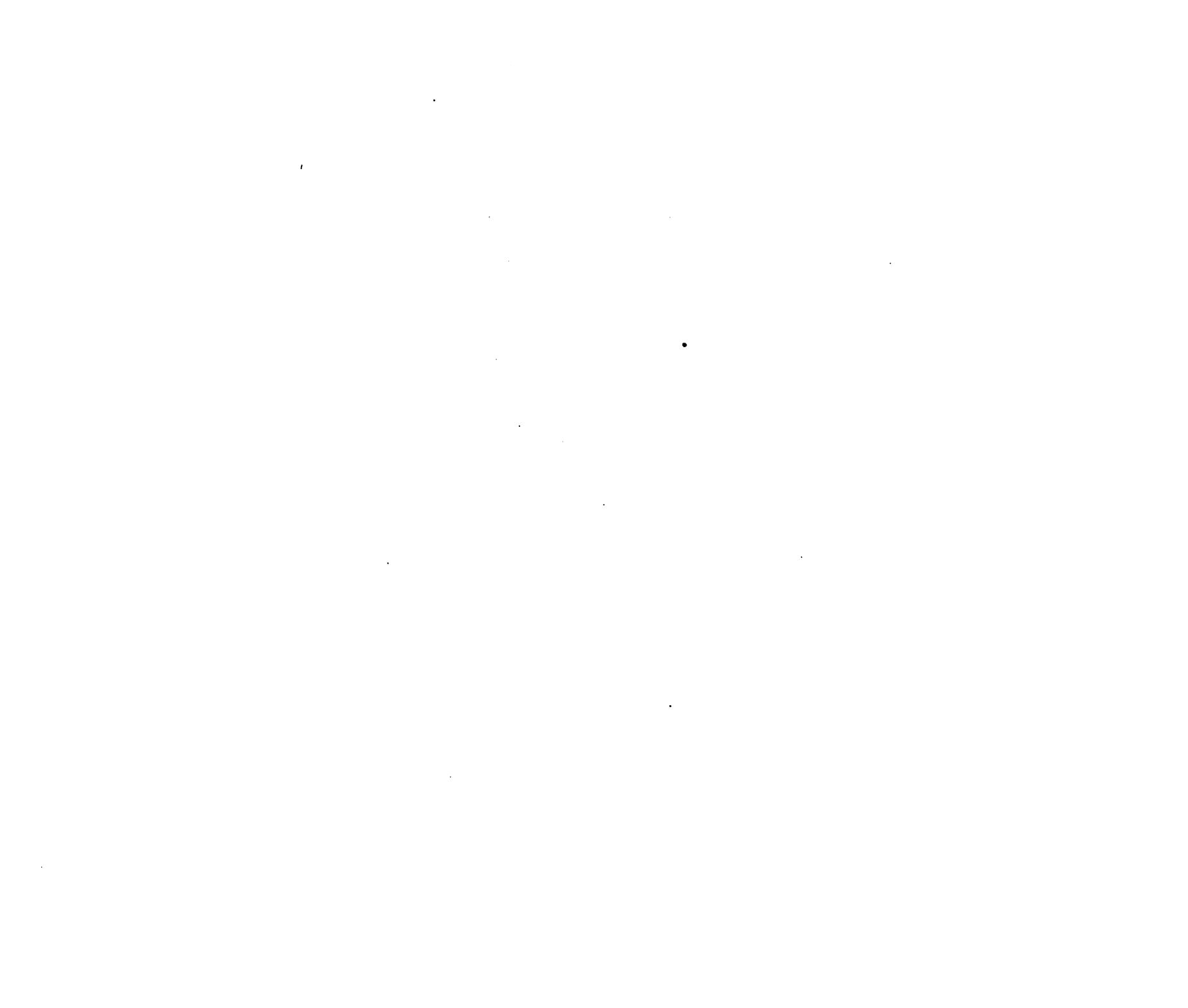
FRED. MILLER BREWING COMPANY.





FRED. MILLER BREWING COMPANY.







A. GETTELmann BREWING COMPANY.





J. OBERMANN BREWING COMPANY.

UNIV.
OF



CREAM CITY BREWING COMPANY.





EAGLE FLOURING MILL

JOHN B. A. KERN & SONS, PROPRIETORS.



E. SANDERSON MILLING COMPANY.

111



MILWAUKEE PLANT.



SUPERIOR PLANT.

DAISY ROLLER MILL COMPANY.

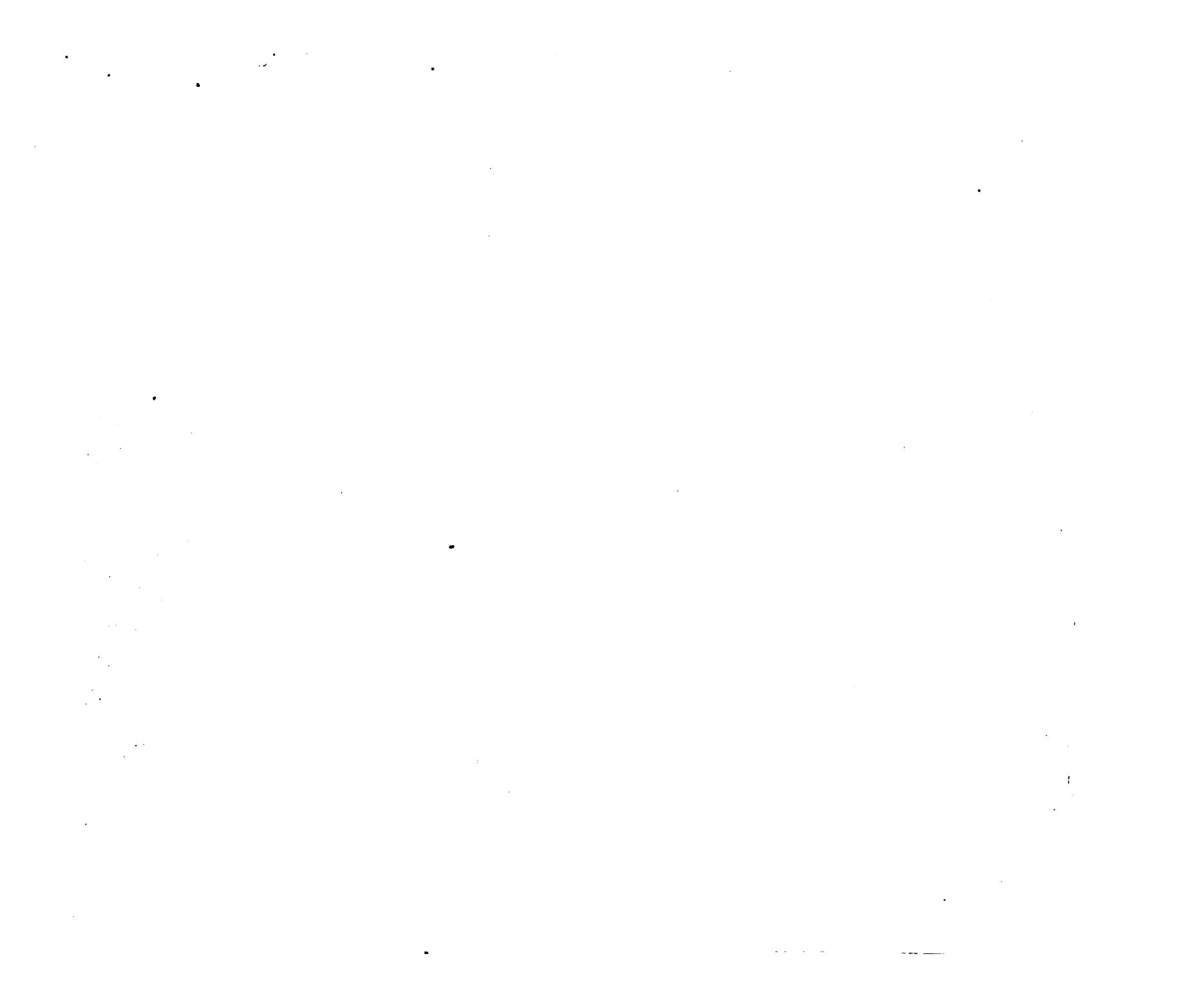
U.S. GOVERNMENT
PRINTING OFFICE





MILLVILLE WORKS OF THE NO. 9 STEEL CO.







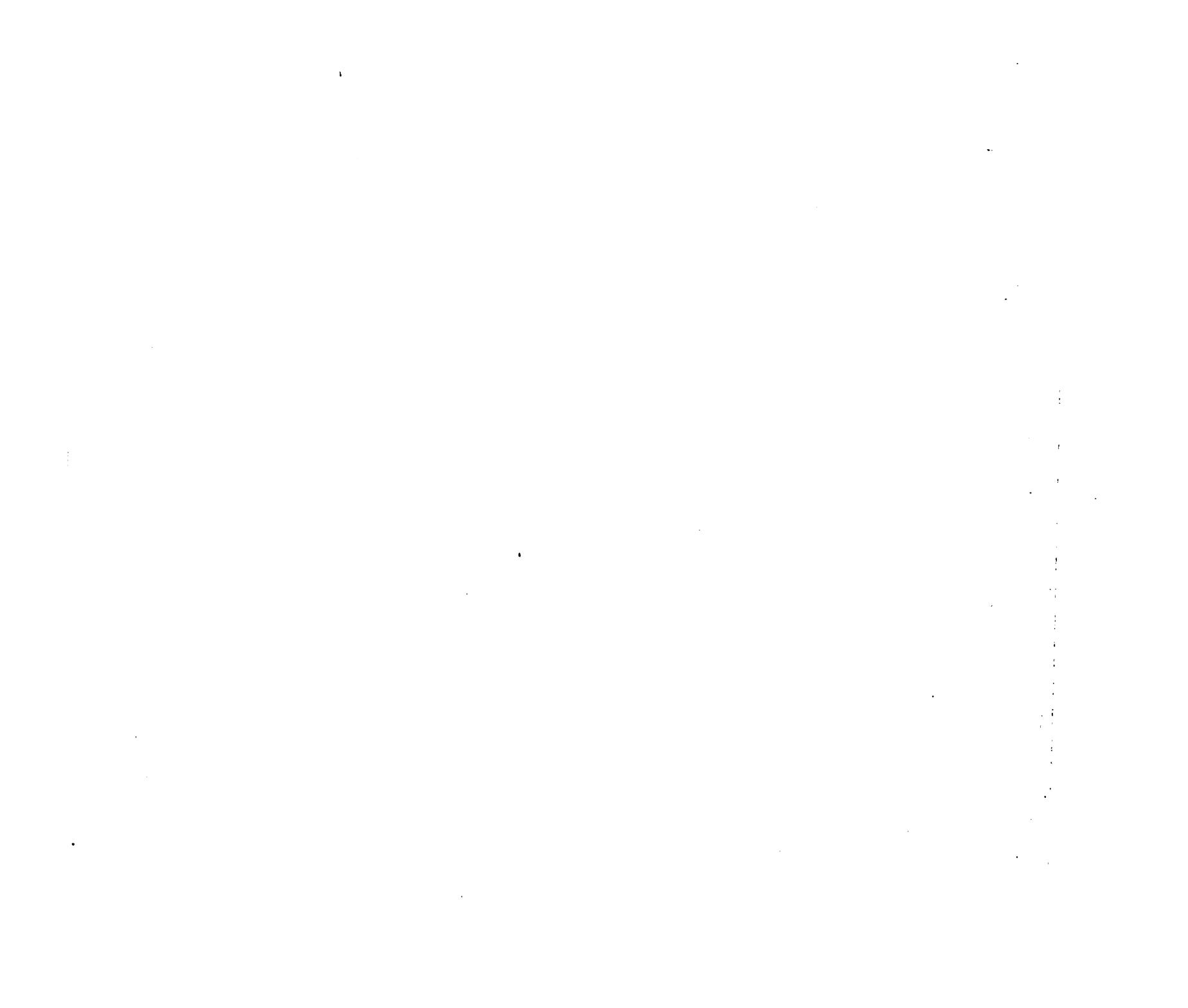
MANUFACTURERS OF ENGINES AND MILL MACHINERY

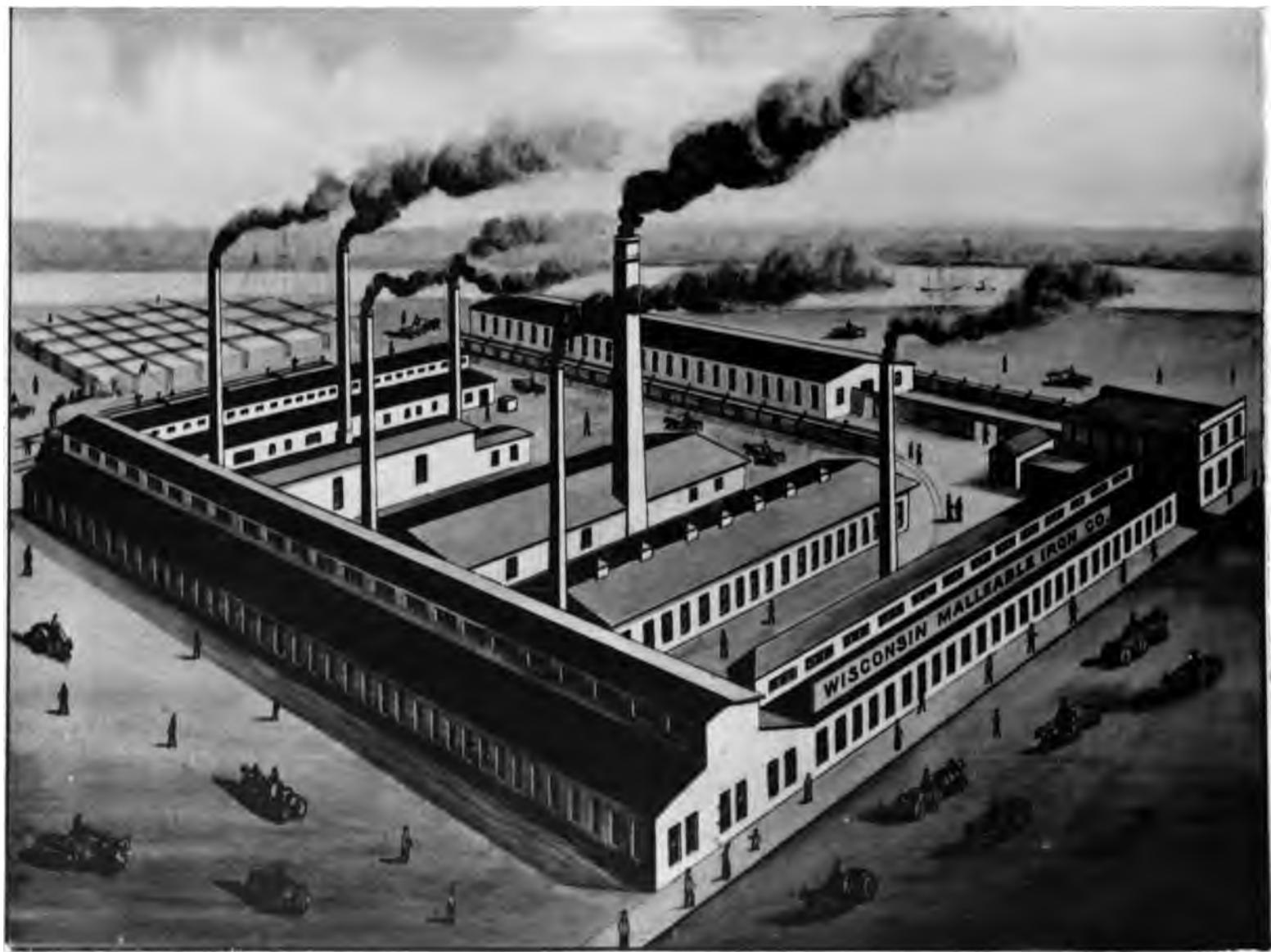


FULLER WARREN CO. MERIDEN, CONN.

MANUFACTURERS OF STOVES, RANGES AND HEATING APPARATUS.





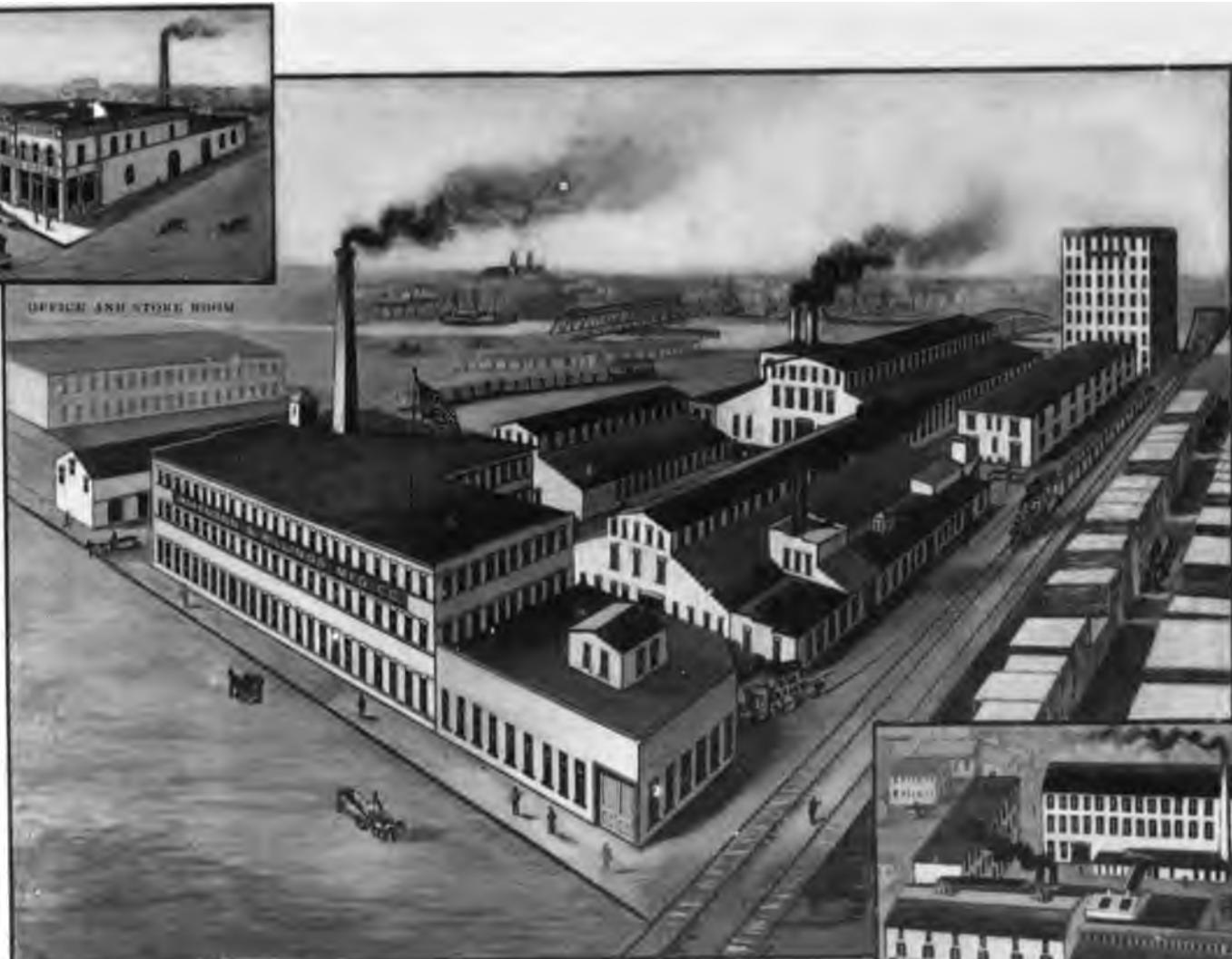


WISCONSIN MALLEABLE IRON CO.

CH



OFFICE AND STORE ROOM.



MAIN PLANT, SOUTH SIDE.



FOUNDRY AND MACHINE SHOP, CEDAR ST.

HOFFMANN & BILLINGS MANUFACTURING COMPANY.





MILWAUKEE PLANT.



SUPERIOR PLANT.

DAISY ROLLER MILL COMPANY.

© 1900
C. W. C.

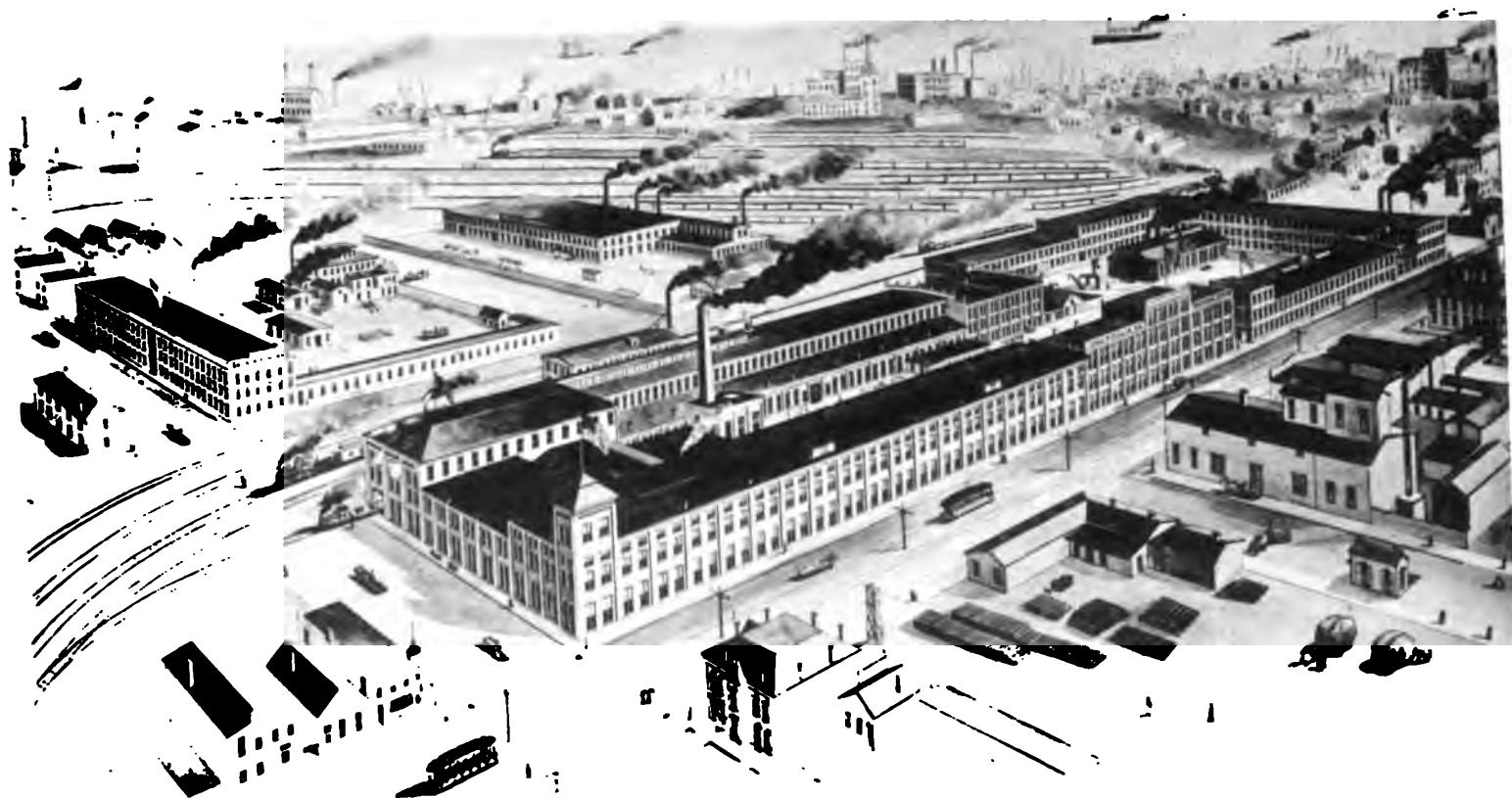




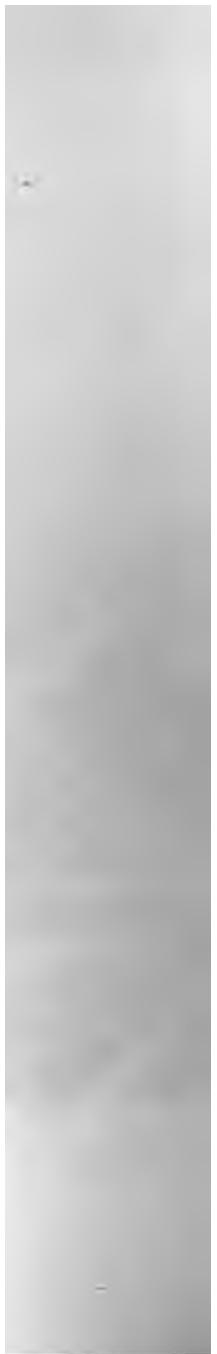
MILWAUKEE - MICHIGAN RIVER - NORTH SHEET. CO

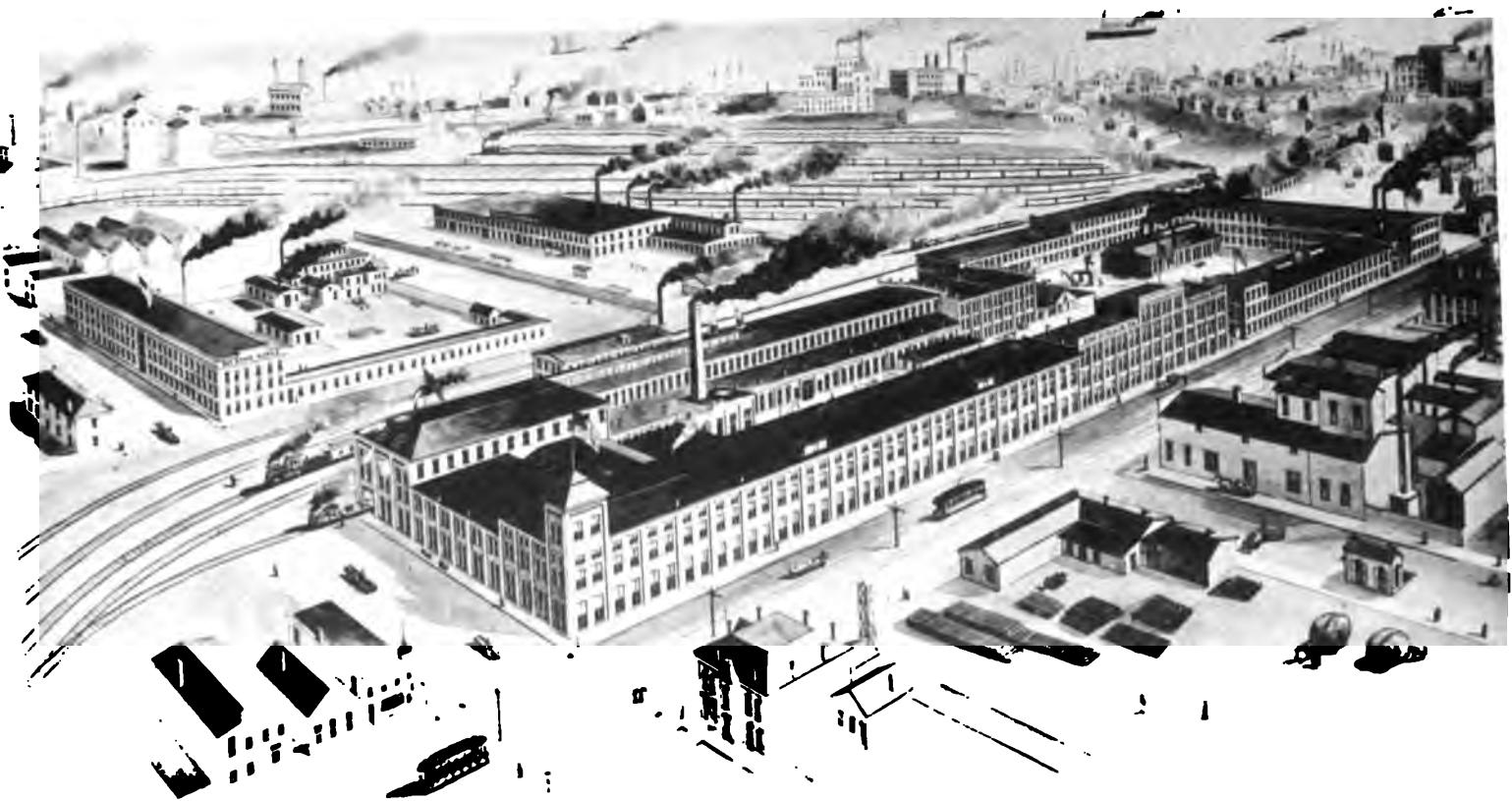






MANUFACTURERS OF ENGINES AND MILL MACHINERY



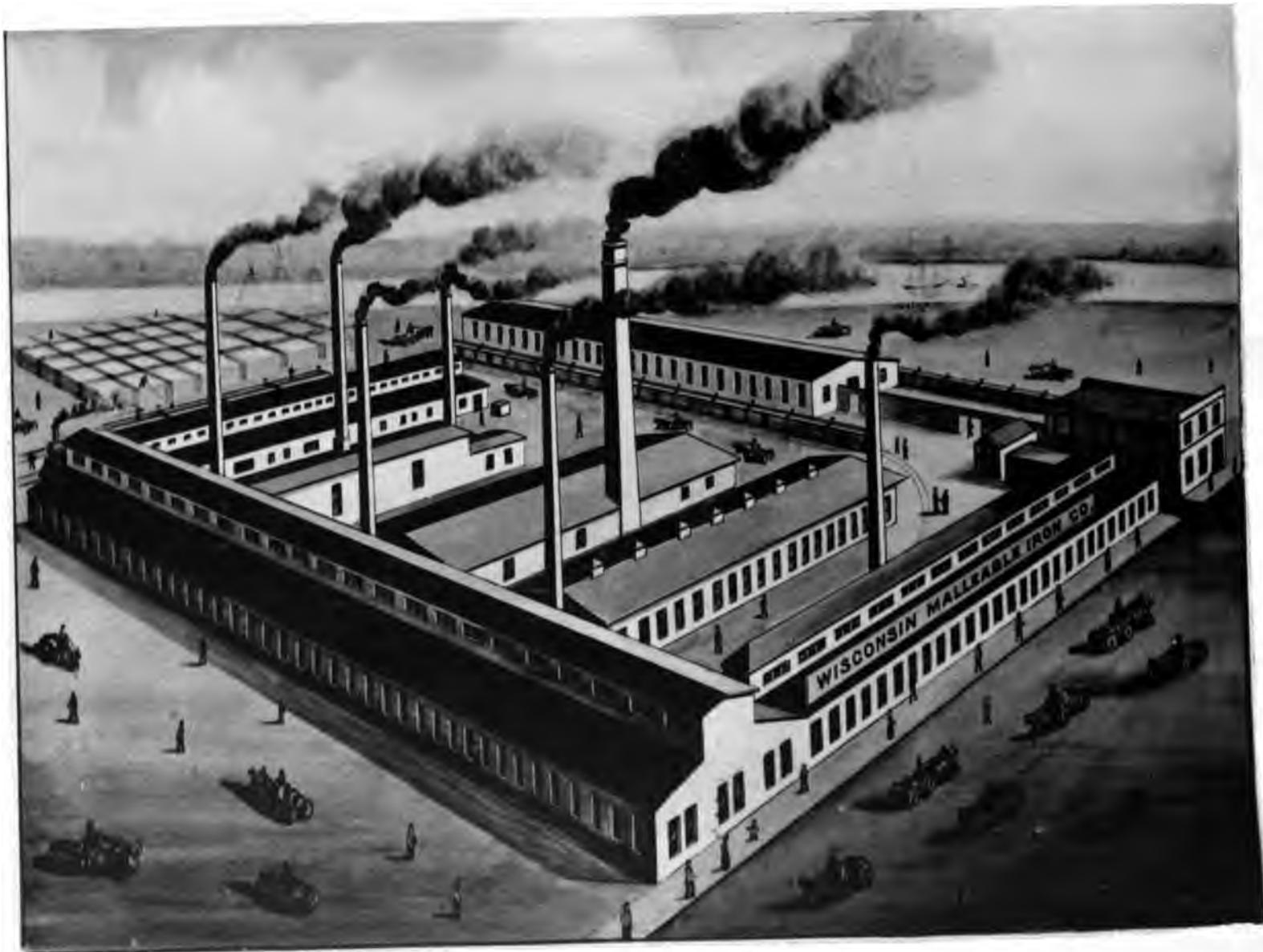


MANUFACTURERS OF ENGINES AND MILL MACHINERY



FULLER WARREN COMPANY.

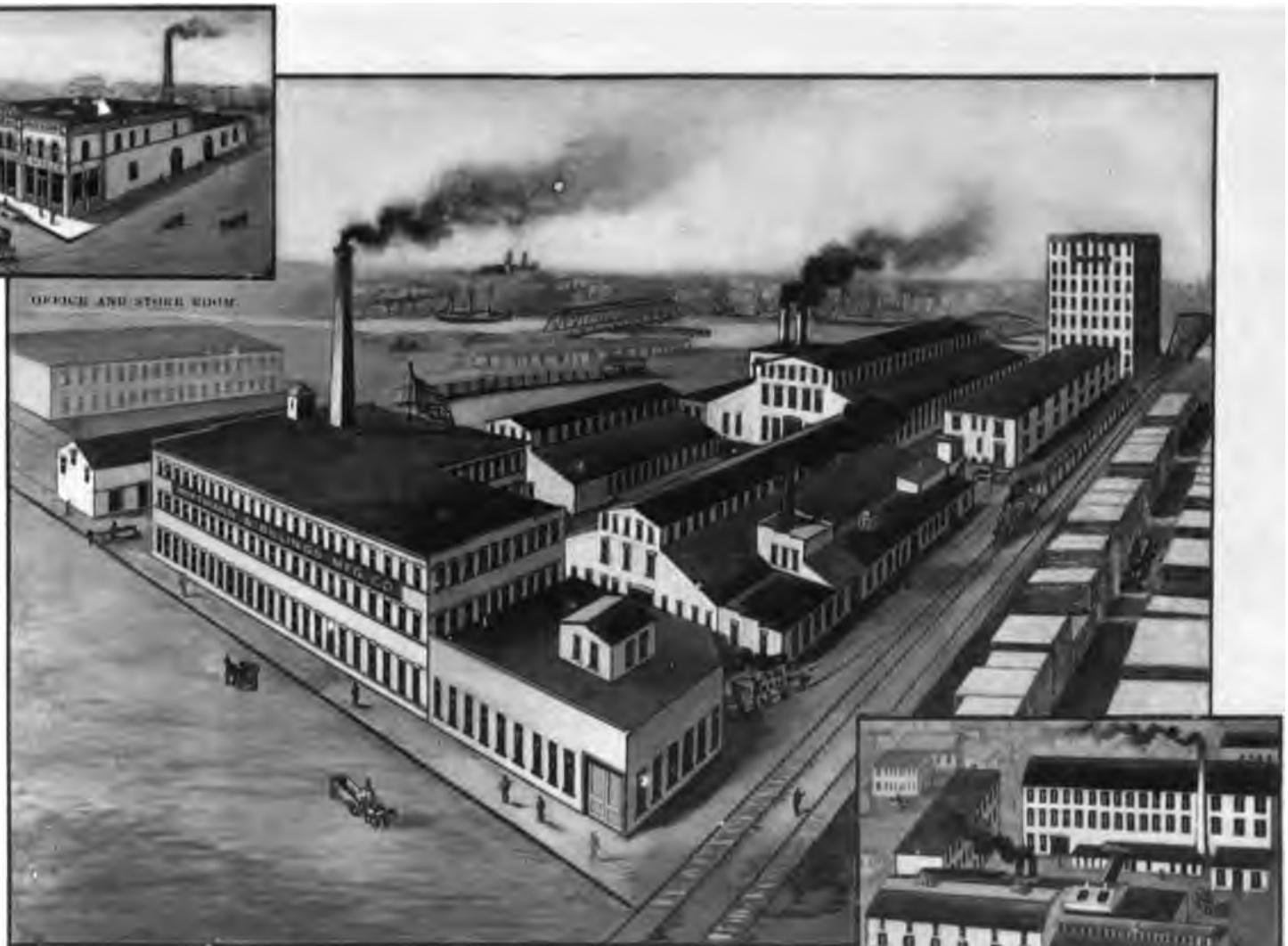
MANUFACTURERS OF STOVES, RANGES AND HEATING APPARATUS.



WISCONSIN MALLEABLE IRON CO.



OFFICE AND STORE BUILDING.



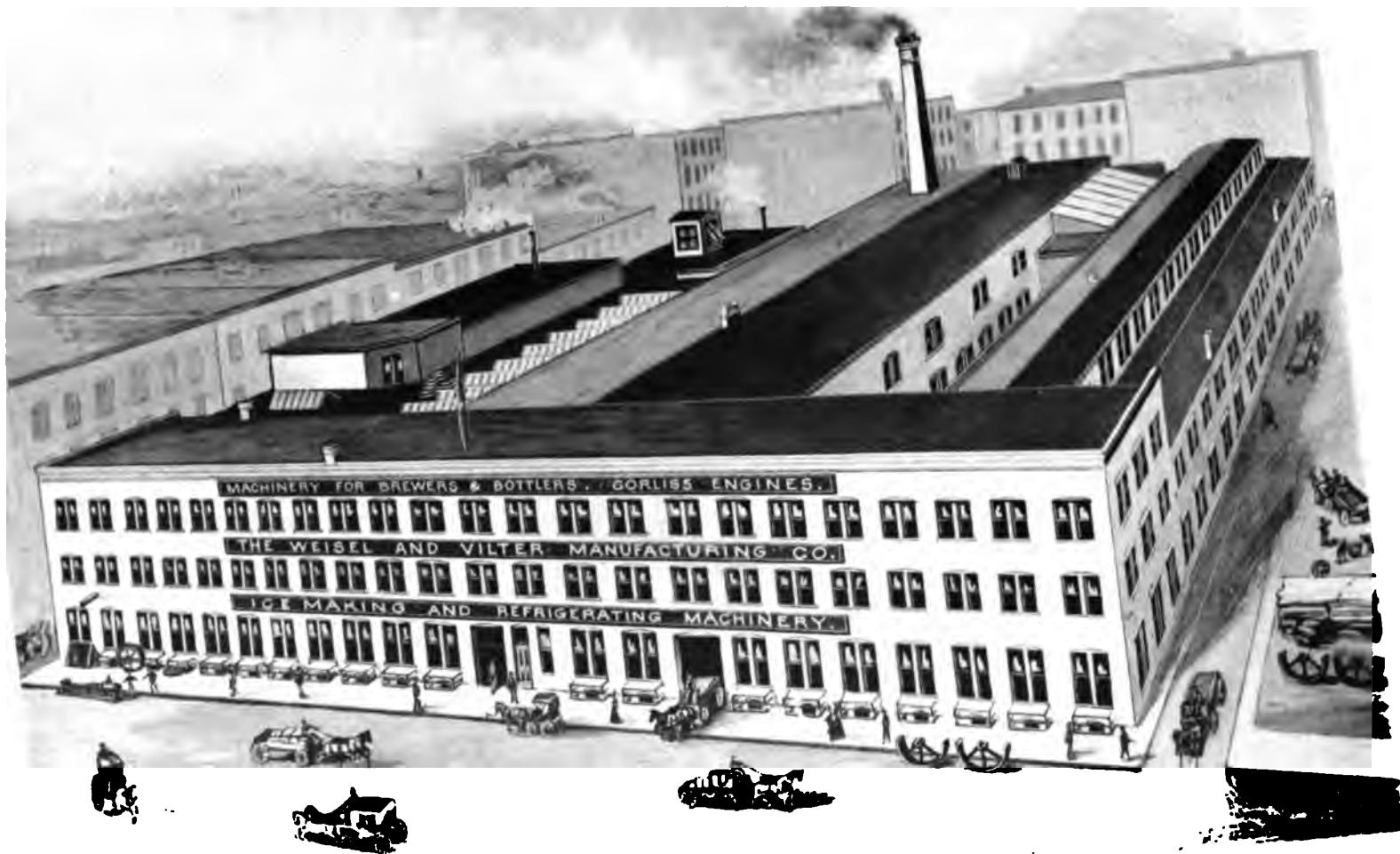
MAIN PLANT, SOUTH SIDE.

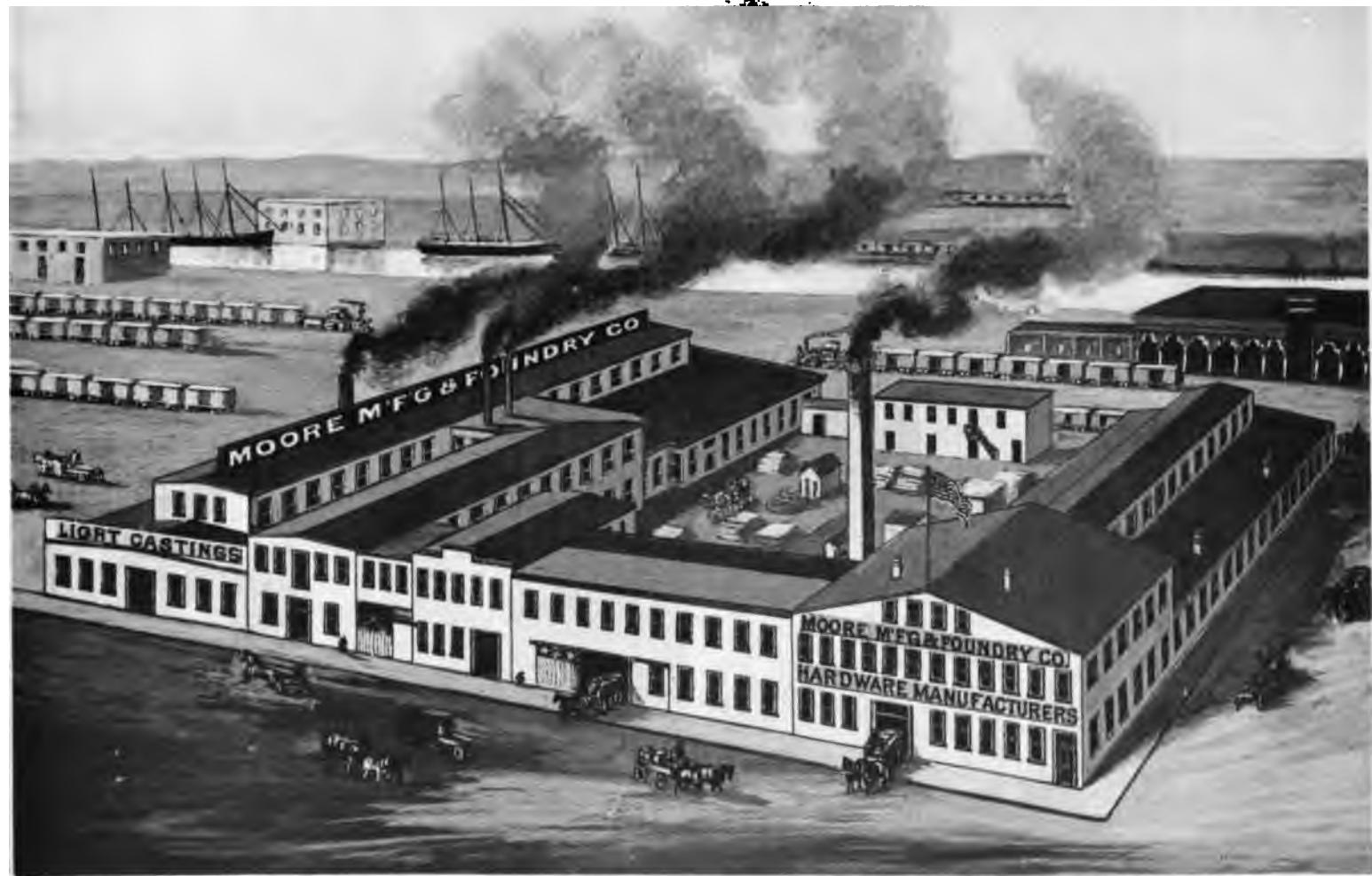


FOUNDRY AND MACHINE SHOP, CEDAR ST.

HOFFMANN & BILLINGS MANUFACTURING COMPANY.

4
JUN 1904
OF





MOORE MANUFACTURING & FOUNDRY COMPANY.





PAWLING & HARNISCHFEGER.



MILWAUKEE BOILER COMPANY.





THE CANADIAN WORKS.

SHERIFFS MANUFACTURING COMPANY, PROPRIETORS.



MILWAUKEE STAMPING WORKS

MANUFACTURERS STAMPED TIN WARE





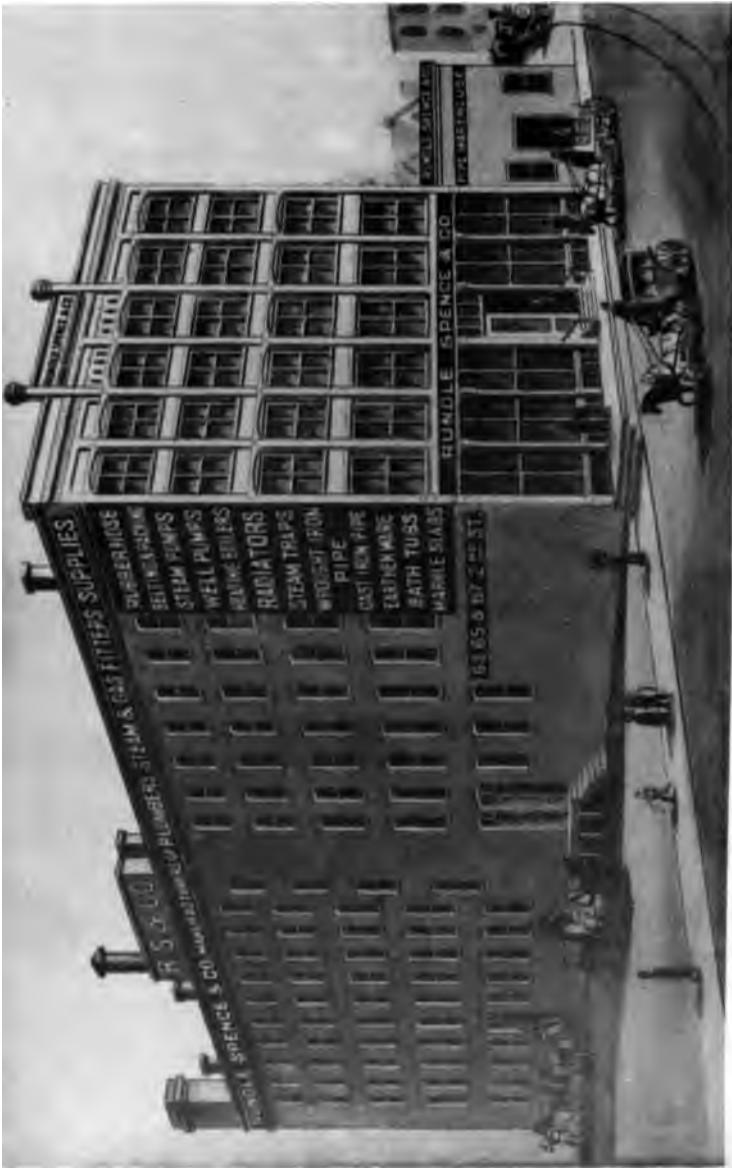
GEUDER & PAESCHKE MANUFACTURING CO.

GEUDER & PAESCHKE MANUFACTURING COMPANY.

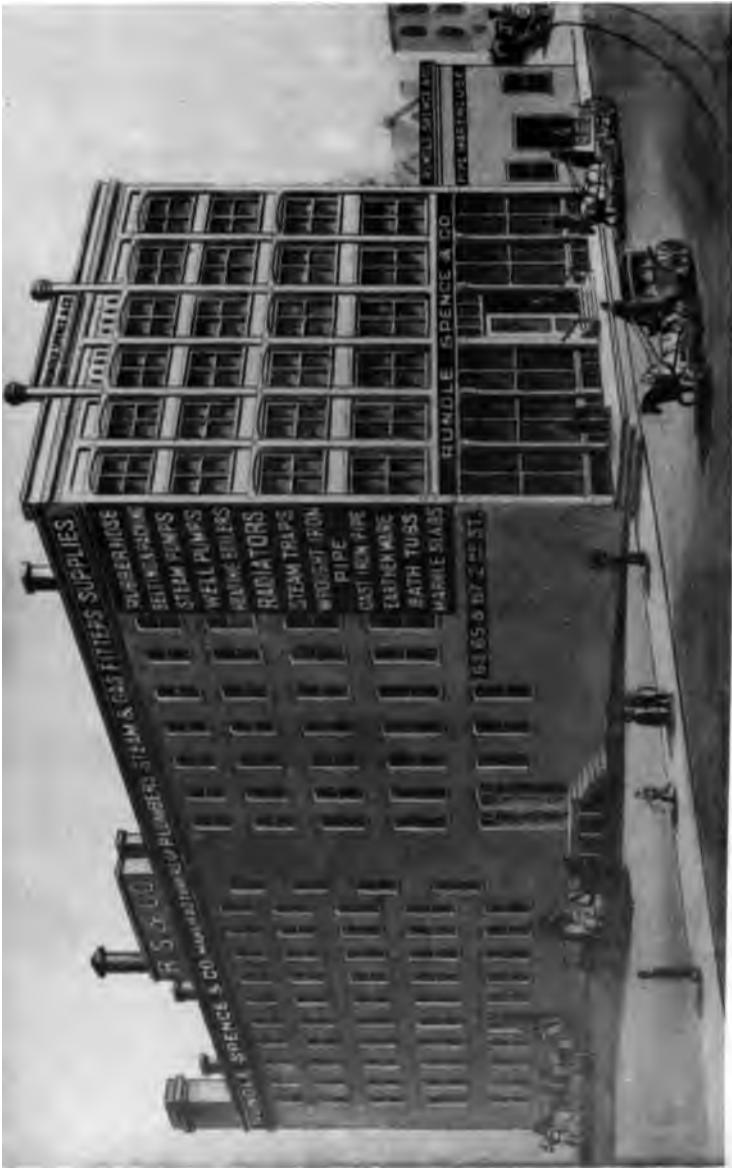
... DUCED, STAMPED AND JAPANNED TIN WARE.



FORSBY AND MCENEE STORE.



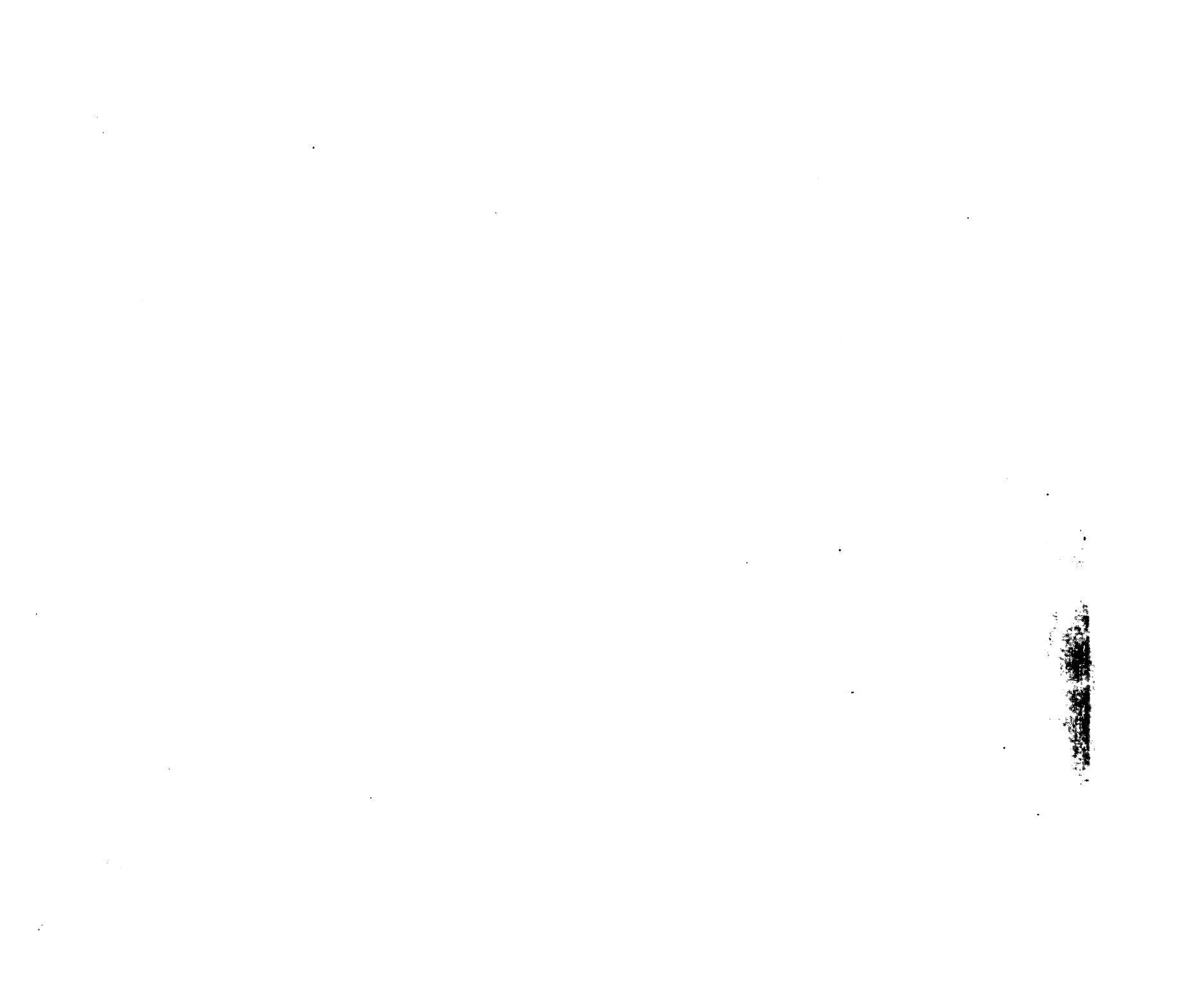
FORSBY AND MCENEE STORE.



FORSBY AND MCENEE STORE.

OFFICE AND SALESBROOK

U.S. GOVERNMENT



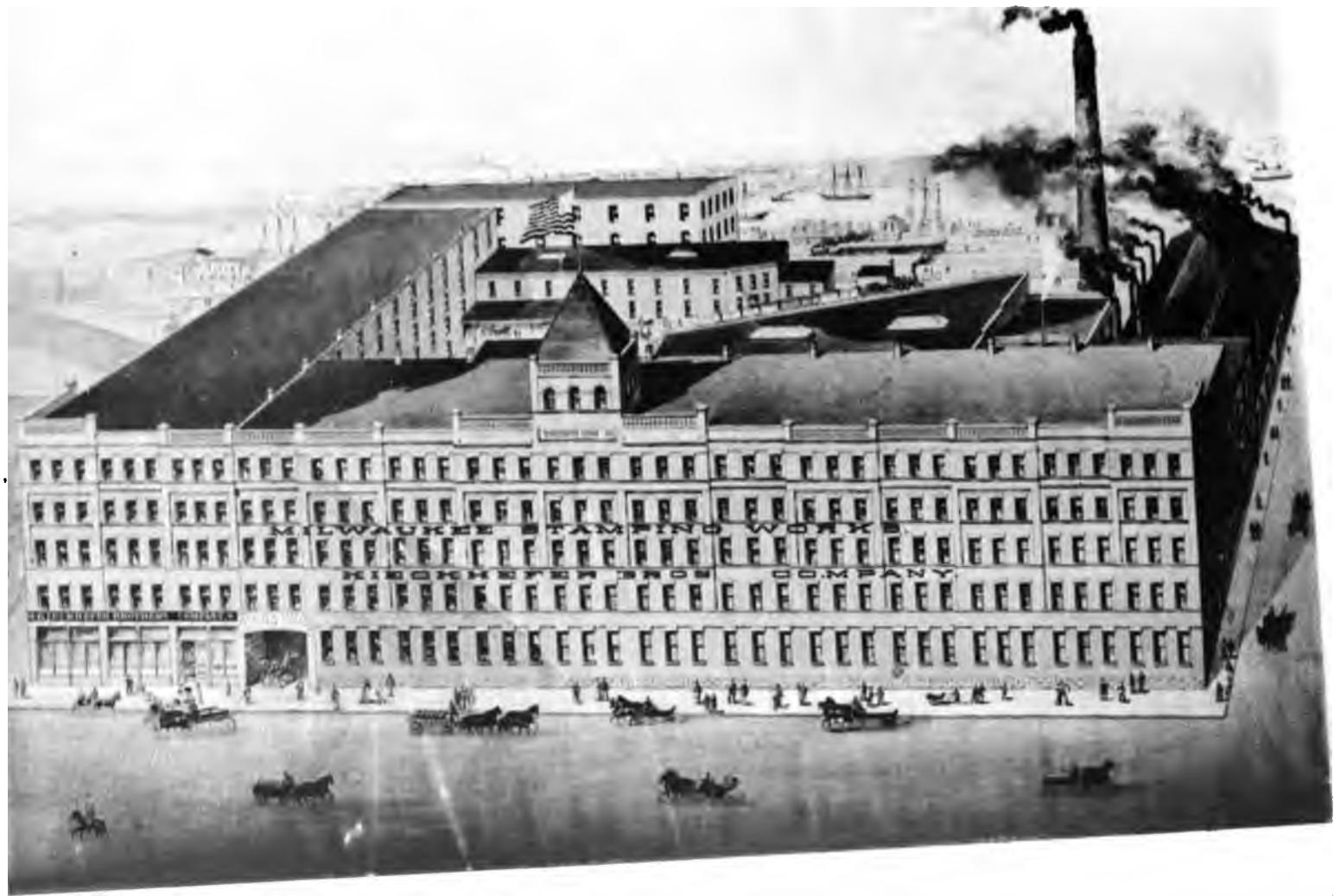


BIRDS EYE VIEW OF CHICAGO
SHOWING STOCK YARDS AND THE CUDAHY PACKING HOUSES.



VULCAN IRON WORKS.

SHERIFFS MANUFACTURING COMPANY, PROPRIETORS.



MILWAUKEE STAMPING WORKS
KINGSTON TIN COMPANY
MANUFACTURERS STAMPED TIN WARE





GEUDER & PAESCHKE MANUFACTURING COMPANY.
MANUFACTURERS PIECED, STAMPED AND JAPANNED TIN WARES.





VULCAN IRON WORKS.

SHERIFFS MANUFACTURING COMPANY, PROPRIETORS.





MILWAUKEE STAMPING WORKS
ROCKFORD COMPANY
MANUFACTURERS STAMPED TIN WARE

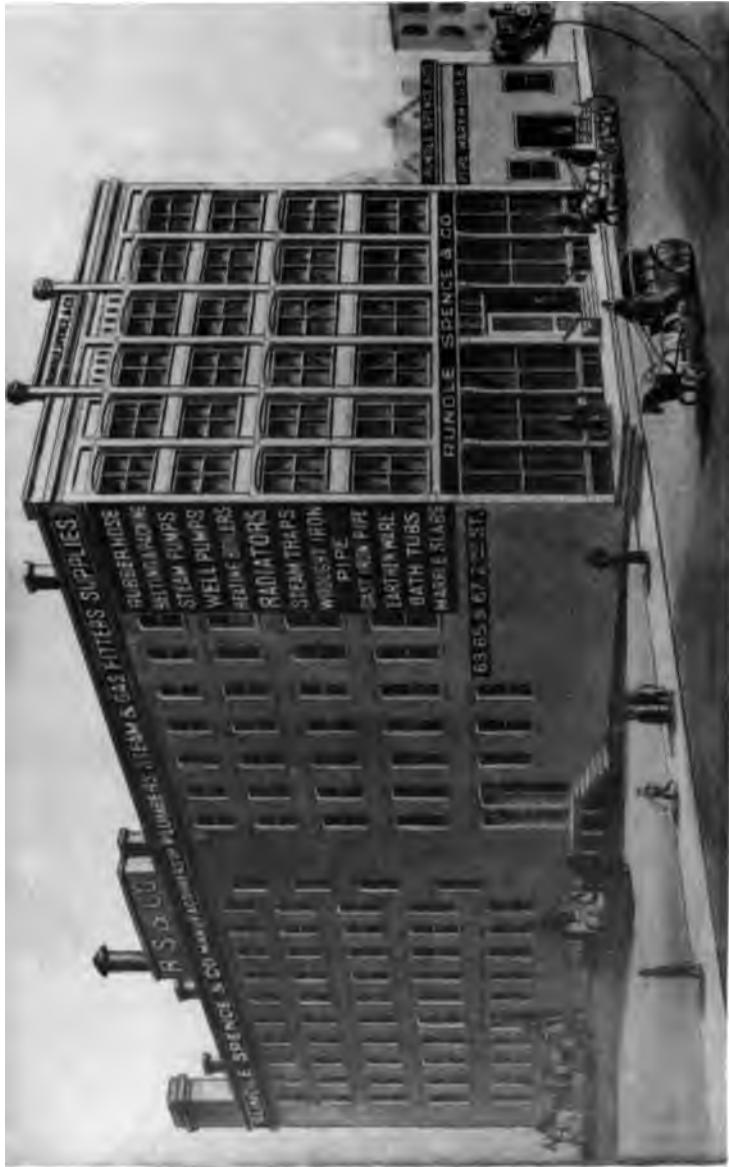




GEUDER & PAESCHKE MANUFACTURING COMPANY.
MANUFACTURERS PIECED, STAMPED AND JAPANNED TIN WARES.



FOUNDRY AND MACHINE SHOP.



OFFICE AND SALESROOM



BIRD'S EYE VIEW OF CUDAHY.

SHOWING STOCK YARDS AND THE CUDAHY PACKING HOUSES.

24



PHISTER & VOGEL LEATHER CO.

UNI
OF

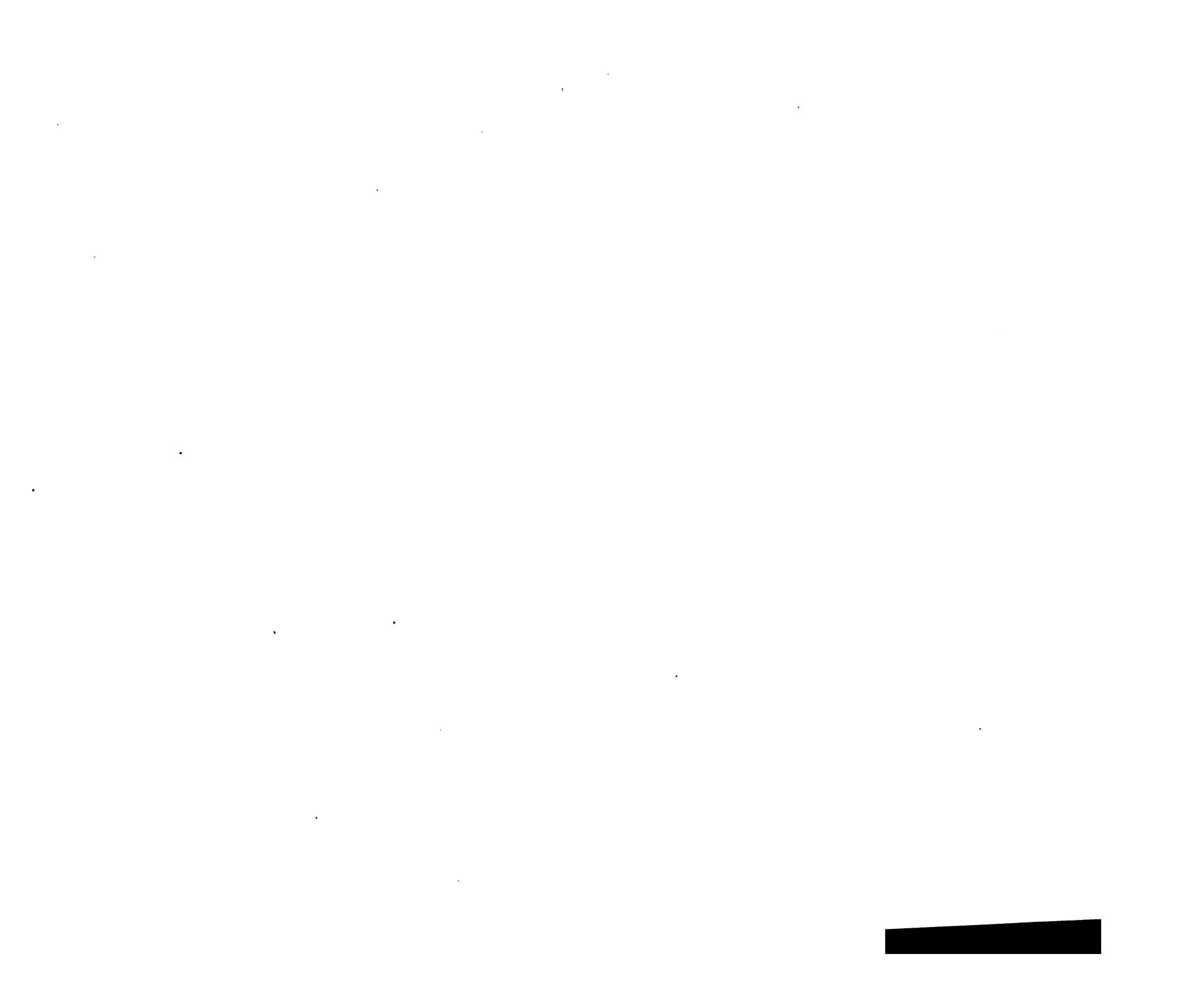


NORTHWESTERN STRAW WORKS.
LADIES' AND MISSES' STRAW HATS.





MILWAUKEE CEMENT WORKS.





CONWAY CABINET COMPANY

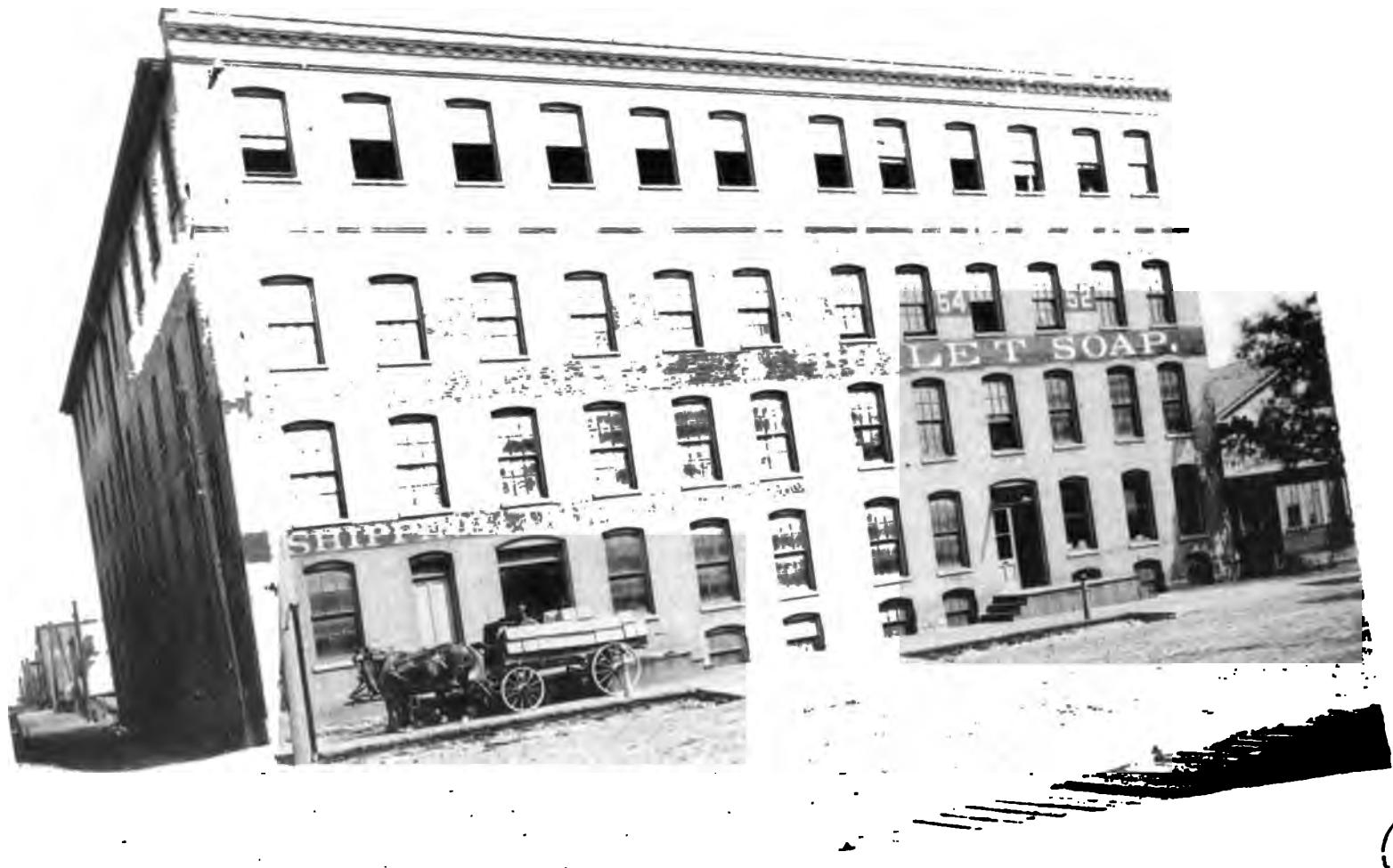
FINE HARDWOOD MANTLES





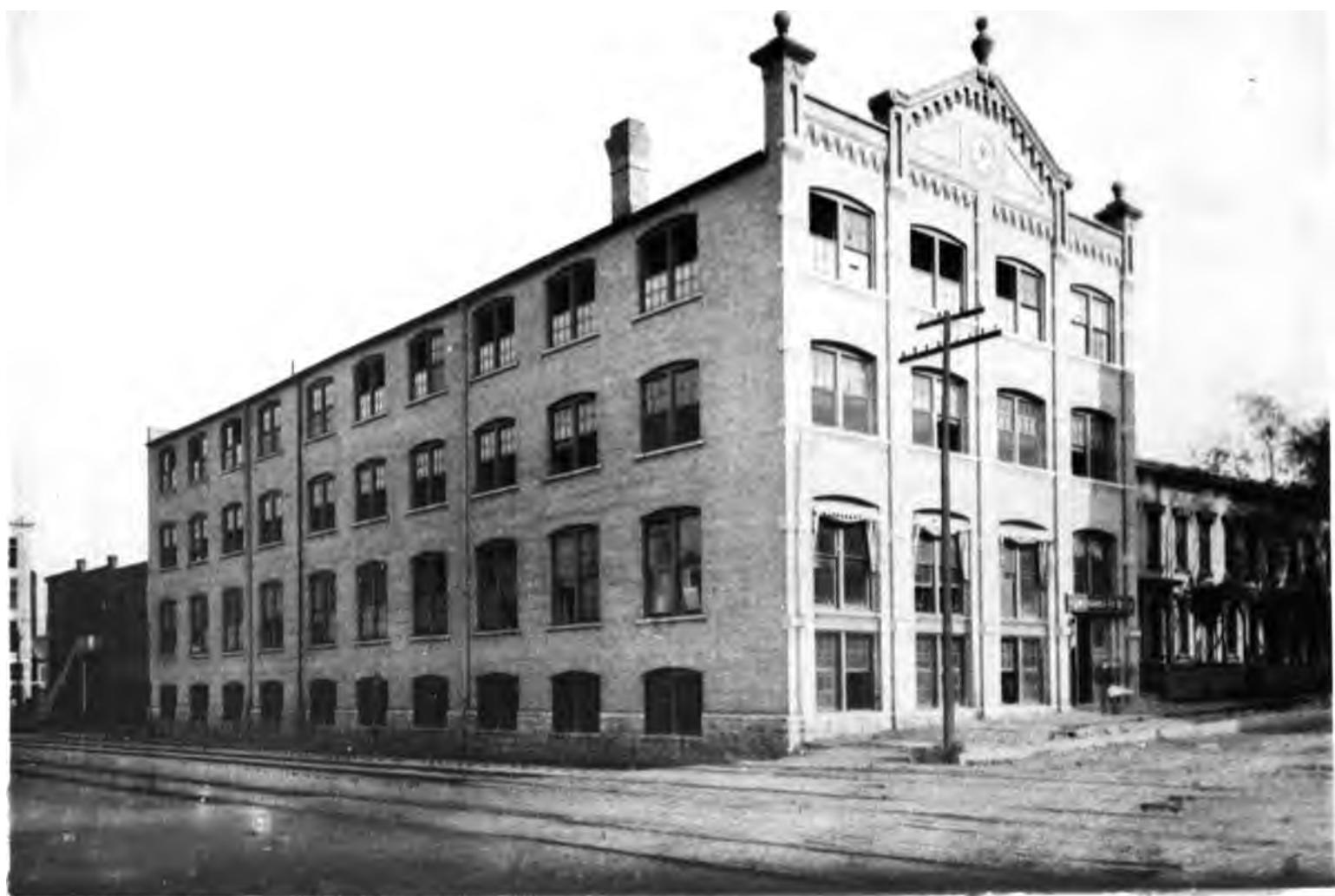


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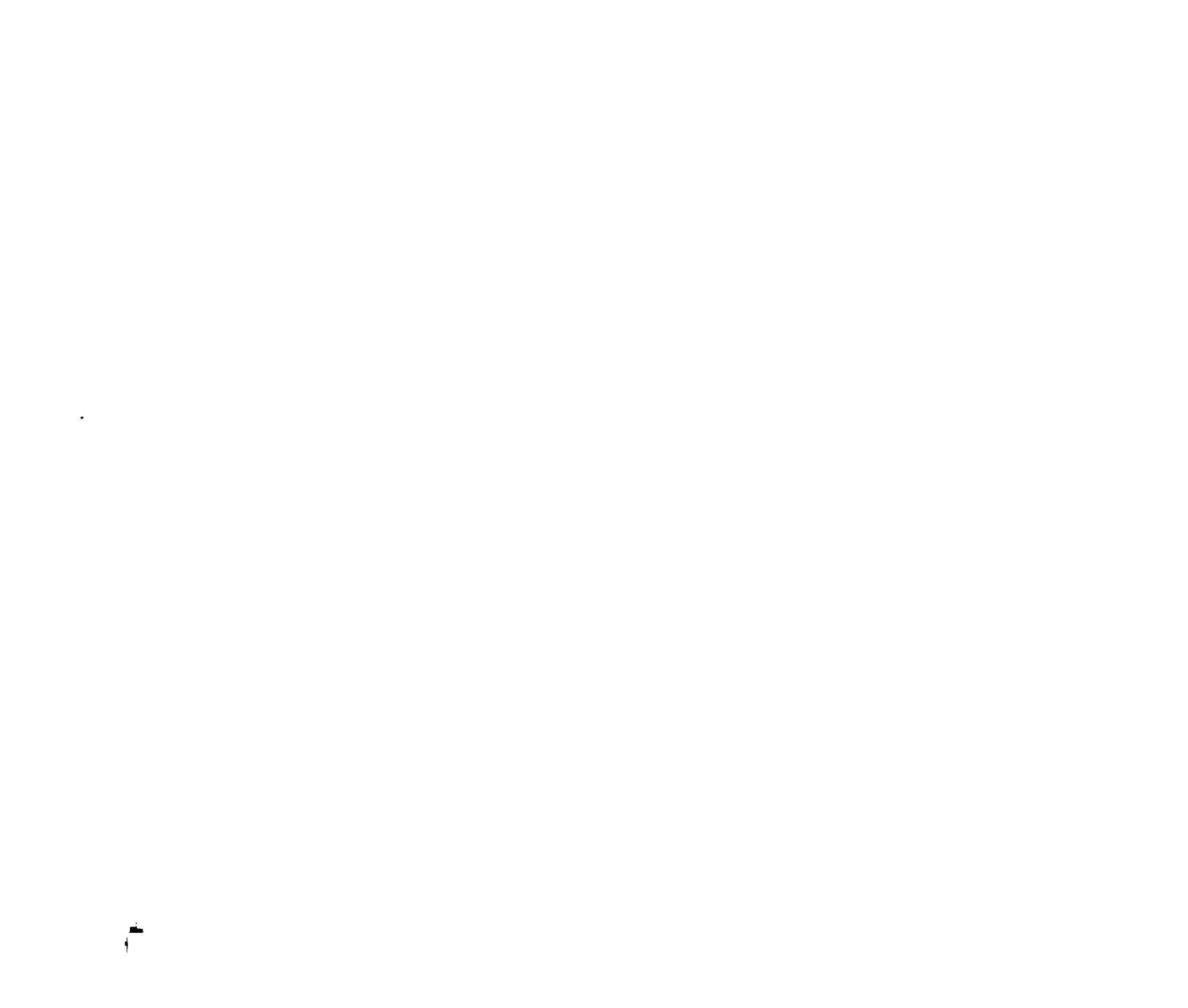


2. $\text{ZnS} \cdot \text{Cu}_2\text{O} \cdot \text{Zn}_2\text{S}_2 \cdot \text{ZnO} \cdot \text{ZnS}_2 \cdot \text{ZnO}_2 \cdot \text{ZnS}_3$





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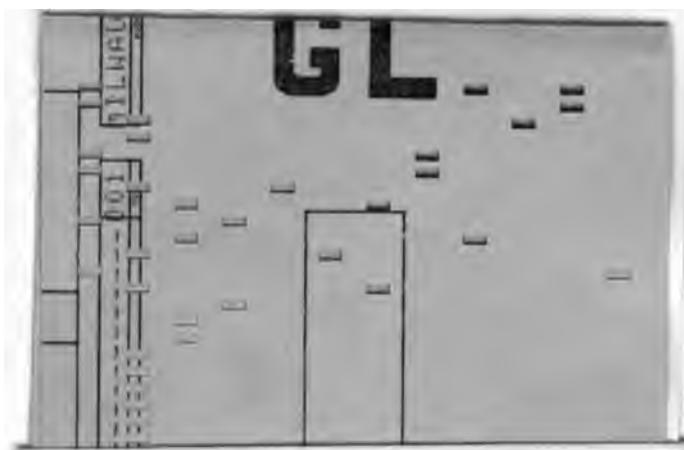
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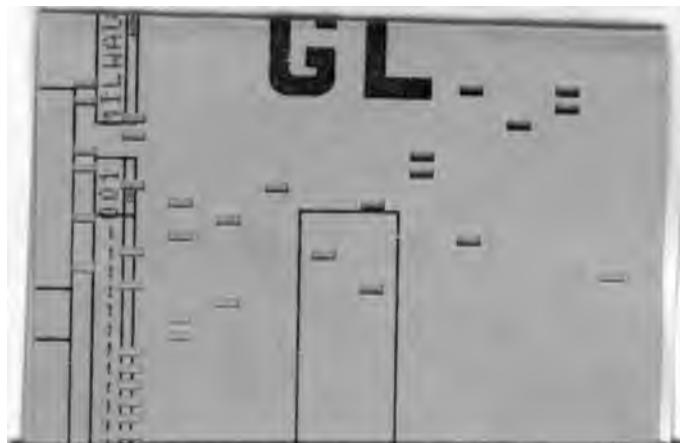
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